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PUBLISHERS' NOTICES.

THE edition of NEW REMEDIES this month is 7,000 copies.

80,000 copies of NEW REMEDIES were printed and issued during 1876.

ANY subscriber who may receive an extra number of NEW REMEDIES will confer a favor by handing it, with such recommendation as the Journal deserves, to some other person who might be interested in it. We want all the friendly aid we can get to increase our list of subscribers.

To our Subscribers.—NEW REMEDIES since January, 1876, has, we think, foreshadowed somewhat the character of Trade Journal its editors and publishers aim to supply the Druggists and Apothecaries of America.

No consideration of cost has at any time prevented the carrying out of every detail which appeared likely to prove valuable either as a matter of interest, of information, of scientific worth, or of practical use. New features have been added in almost every number, and continued efforts will be exerted to make it more and more indispensable to every manufacturer, dealer in and dispenser of drugs, chemicals, paints, oils, etc.

Only the most extensive circulation, a far larger list of subscribers than has ever been owned by any Drug journal in the past, will reimburse the very heavy expenses incident to its publication.

Although NEW REMEDIES has now nearly *three times* the number of subscribers it had one year ago, we hope to double even this unprecedented success before 1878.

We want our subscribers to help us. If you know some friend who *should* take NEW REMEDIES, write him about it, and send us his address. We will mail him a specimen number.

EDITORIAL.

ON the 27th of February the druggists of Brooklyn held a meeting for the purpose of organizing an association, and on another page will be found the officers elect, and ethical code adopted by them. At that time and at subsequent meetings the effort was made to bring about a union with the College of Pharmacy of the City of New York, a bill to this end having been submitted during the present session of the State Legislature, but at last accounts the opponents of the plan for regulating the practice of pharmacy by law have carried the day by a large majority. We are sorry to note that their victory was marred by the conduct of some of their partisans.

DR. JENKS, of Detroit, was recently sent for by a respectable medical practitioner, living in Goderich, Canada, at the request of the friends of a patient. It was, on consultation, decided that an operation should be made, and a day was fixed for its performance. As a license to practice is required in Canada, and news of Dr. Jenks' proposed operation having meanwhile come to the ears of a medical member of the Medical Council, living in Toronto, the latter sent a detective to meet Dr. Jenks on his way to keep his appointment, and inform him that he would be arrested for violation of the law if he took part in the operation. It is hardly necessary to add that Dr. Jenks returned to his home without keeping his engagement. When we consider that Dr. Jenks is President and Professor of Obstetrics in the Detroit Medical College, and was quite lately appointed by the American Medical Association to be one of the delegates to the Canadian Medical Association, we are led to infer from such action that the Ontario Medical Act is not so much intended to prevent unqualified persons from practising as it is to foster trade-unionism. It is but just to say, however, that the Canadian journals denounce the action of the member of the Council in the most unqualified terms.

THE following editorial and extracts, which we find in the *Louisville Medical News*, appear to us to be so seasonable that we copy them entire :

" Prof. Maisch, Permanent Secretary of the American Pharmaceutical Association, contributes to Vol. II. of Public Health Papers, issued by the American Health Association, a valuable paper upon Pharmacy in its Sanitary Relations, from which we propose to make a few extracts. Regarding mistakes of druggists, he says :

" ' The habitual exercise of ordinary care and circumspection will, at an early period of his professional and business career, be regarded by the pharmacist as his paramount duty ; and if this be well understood, suitable precautions will be taken

in all the varied duties pertaining to the laboratory or the office. Of the errors and mistakes occasionally occurring in pharmaceutical stores—more frequently, it is believed, in bygone days—a very small number only are directly and solely attributable to want of proper care. While it is true that culpable negligence exists in some stores, it will be found that mistakes occurring in consequence thereof, in nearly every instance might have been avoided, if the guilty party had possessed sufficient knowledge of the physical properties of the article, and been able to recognize and distinguish it from others of similar appearance.'

"Prof. Maisch says that for a long time this country was the favorite market for adulterated, impure, and worthless drugs. Matters in this respect have, however, greatly improved. Partly through the action of the national drug law, in force since 1848, which provides for examiners of drugs at the ports of entry; partly by local legislation, to prevent the adulteration of drugs after being admitted to the country; but mainly by 'the progress of popular intelligence in general and the increased facilities of pharmacists in particular, our market,' he says, 'now furnishes as good drugs as can be found elsewhere,' and they meet with ready sale.

"Concerning the fate of the second and third class drugs, he very pertinently remarks:

"'To the experienced, this question is not very difficult to answer, as far as our country is concerned; there are many ill-informed apothecaries in small and large places, and many medical practitioners in the country, furnishing medicine to their patients, who possess little or no knowledge of drugs, and who are willing to purchase, provided the article be a little cheaper than it can be obtained from another house. These are the main, or perhaps the only outlets for the cheap and inferior drugs.'

"Prof. Maisch then makes a bolder stroke at the question in dealing with evils protected by powerful interests. His remarks upon these are so important that we must quote here at greater length:

"'The cheapness of so-called officinal medicinal preparations is always an argument in their favor on the part of the same class who purchase crude drugs because they are cheap, and who are little influenced by the reflection that a galenical preparation cannot be sold at a less price than the cost of the articles which are pretended to enter into its composition. There are now perhaps several hundreds of so-called manufacturing pharmacists in the United States, some turning out unobjectionable products as far as quality is concerned, while the products of others are inferior and unreliable—all, however, having the tendency to encroach upon the legitimate vocation of the pharmacist and to aid in closing the laboratory of the latter. This state of things has not come suddenly upon us; *it has gradually grown from insignificant beginnings, and its existence is due in part to the ignorance or indolence of a certain class of pharmacists, and in part to the support received from many members of the medical profession.* It is not uncommon for physicians to prescribe A's extracts, B's fluid extracts, or C's pills, instead of insisting on getting these articles, if officinal, prepared so as to represent the intention of the pharmacopœia; and if favorable results have been obtained with such a preparation, a history of the case may sometimes be found in the medical journals, with the manufacturer's name attached in such a manner as to lead unthinking practitioners to infer that peculiar virtues are connected with a preparation because it had been made by or under the supervision of a certain man. Another circumstance has contributed to increase this evil. Though justifiable perhaps from a purely commercial standpoint, the publication, by manufacturing pharmacists, of so-called medical journals is detrimental not only to the progress of medicine and pharmacy, but likewise to the best interests of the public. Donning a professional garb, they are usually filled to a considerable extent with reports of cases benefited or cured by one or more of the special preparations of the manufacturer; and being obtainable for a mere nominal price, or even distributed gratuitously, such journals find their way to just such places where a demand for their owner's preparations can be created or increased. Suppose that this movement has been inaugurated with what may be regarded as perfectly legitimate preparations, it is soon followed by so-called *specialties* and *elegant pharmaceuticals*, which are imposed upon the physician and the public, and which, *though their composition is stated with an appearance of frankness, in too many cases scarcely differ from the vile nostrums which no true physician would prescribe and with which every upright pharmacist would refuse to have his name connected. . . .* In some cities, the prescribing of elixirs of different makers had become such a nuisance that pharmacists were compelled to keep in their stores half a dozen different preparations all bearing the same name, to gratify the whims or predilections of the prescribers.'

"Prof. Maisch then deals with the patent-medicine question. Of the vile compounds of this description, he says:

"'There is scarcely a nostrum which is not calculated to do infinite harm, be it in consequence of the powerful medicines contained in it, or because of its injudicious use by the public.'

"And while enumerating several plans which have been recommended for the abatement of the evil, he says:

"'It must also be borne in mind that in a country like ours there must naturally exist a necessity for domestic medicines, because outside of the cities and the more populated districts it is often impossible to secure the services of a physician except after hours of delay.'

"To meet this necessity he recommends a plan, suggested to him by Professor Procter many

years ago, which he says has of late been agitated anew, and is thus put by the *Atlanta Journal:*

"'In the way of *remedy* for these acknowledged evils, we suggest that the medical profession recognize the want of household remedies by publishing *authoritative formulæ* for the use of pharmacists, who may compound them at their counters and keep them on hand for the ready and convenient supply of *all the real wants* of families and of individuals in this direction.'

"The remainder of his paper is devoted to a consideration of the schools of pharmacy, and the pharmacy laws enacted by several of the States.

"In a paper so well considered as the one presented by Prof. Maisch it is difficult to make an abstract which will preserve anything like its original force. We regret our inability to give it entire, and must content ourselves with the extracts above printed. These will show something beyond the statements they contain in reference to the state of pharmacy in this country. They will show that whatever this be—whether good or bad—the pharmacists have men among them perfectly competent to appreciate the one and to condemn the other, and into their hands may safely be committed matters pertaining to their own reform.

"This is a statement which may surprise that portion of the medical press which has considered it a sort of religious duty to look after our brethren of the spatula in a severe and fatherly way. The fact is, criticism of pharmacists comes with rather bad grace from doctors in America in this year of light, 1877—such criticism at least which would institute a comparison between the two callings for the purpose of showing our great superiority. Does any one pretend to say that education is the distinguishing mark of the doctors? In the face of the nine-months' graduates this ought to make the school-men smile. Is theirs a trade and ours a profession? Who are greater hucksters than the men who advertise the sale of beneficiary scholarships and run the diploma mills? Do they depend more upon the profession of medicine than this depends upon them? If the little doctor helps the neighboring little pharmacist by sending him regularly his prescriptions to fill, doesn't the little pharmacist send him in return people to be filled with prescriptions, that he may receive the same, perhaps, to fill? Nay, this is the smallest link which exists between the two parties, forged in ideas of petty gains. Between the better men of both sides there is mutual confidence, mutual respect, which repels the idea of odious comparison. We shall always be for our guild; and being for it, seeing the intelligence, the industry, the education, the liberality, the desire for continued reform shown by American pharmacy, we shall rejoice in the assistance it gives us, and shall cultivate its friendship rather than, by giving it advice upon subjects it knows far more about than we, excite its enmity and laughter.

"The great problem before the American profession is now to set its own house in order. Let us not be distracted by outside issues."

MATERIA MEDICA.

Ava or Kava-Kava.

In the October number of our last volume we brought an article on the properties and uses of this plant; since then renewed attention has been drawn to it, and it has been experimented with by several American practitioners who obtained it by way of San Francisco, and whose reports would seem to confirm its efficiency in curing gonorrhœa We therefore follow the example of the *Pharm. Journ. and Trans.* in illustrating the essential parts of the plant. The medicinal properties were first pointed out by Gobley in 1857, who also analyzed it and found it to contain: water 15, cellulose 26, starch 49, methysticin 1, acrid and aromatic resin 2, extractive matter and gum 3. potassium chloride 1, magnesia, silica, etc., 3 parts in 100.

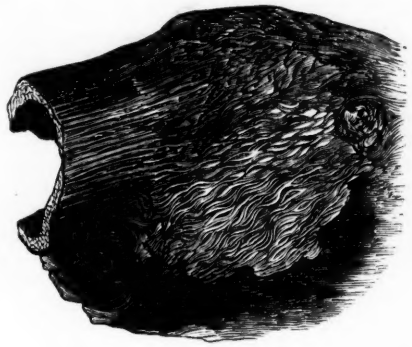


FIG. 1. Superficial Section of Root.

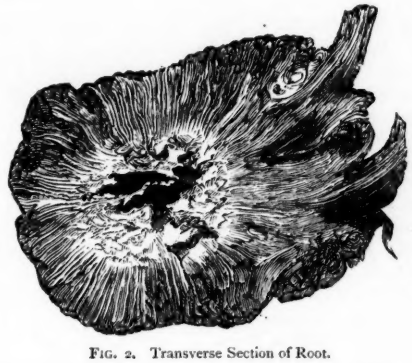


FIG. 2. Transverse Section of Root.

The botanical name of the plant is *Piper methysticum* Miq., and its home are the islands of the Pacific Ocean. It grows to the height of about 6 feet, with stems varying from 1 to 1½ inches in thickness. The leaves vary from 4 to 8

inches in length, and are nearly as broad as they are long. In shape they are cordate, tapering above somewhat suddenly into a very short, acute apex. The leaves are stalked, the petiole being usually from 1 to 1½ inch long, and dilated towards its base. To the eye the leaves appear smooth, but with a lens they are seen to have the veins covered with minute hairs, while the rest of the leaf has short hairs thinly scattered over it. The principal veins of the leaf, of which there are usually 10 to 12, radiate from the top of the petiole, the three central veins being very close together for about half an inch upwards from the base of the leaf.

The root is large and fibrous, but rather light and spongy in texture. When fresh it usually weighs from 2 to 4 lbs., although it sometimes exceeds 20 lbs. in weight. In drying, rather more than half the weight is lost. Externally, the root is of a grayish-brown color, and has a very thin bark which, when sliced off, uncovers a complete network of woody tissue (Fig. 1), some of the interstices of which are filled with soft yellowish white cellular matter, whilst others are quite empty. Internally, the root is of a yellowish white color. In a variety of the plant known as "Marea" the inner portion is citron-yellow, and in another called "Avini Ute" it is of a pinkish hue. A transverse section (Fig. 2) shows a number of narrow lines (woody bundles) radiating from near the centre to the circumference, the portions of the soft cellular tissue by which the lines are separated from each other being much wider than the lines themselves. The central portion of the root is soft and cellular, with a few woody bundles anastomosing with each other and proceeding at right angles to the radiating bundles, so that they form a network in the centre of the transverse section. The root has a pleasant odor, recalling that of the lilac (*Syringa vulgaris*, L.), or the meadow-sweet (*Spiræa ulmaria*, L). It has a slightly pungent taste, and causes an increase in the flow of saliva, with a slightly astringent sensation in the mouth, and a scarcely perceptible bitterness.

Fig. 3.—Ava, or Kava-Kava.

The root and extreme base of the stem are the parts generally employed; those which grow on a dry soil being, it is said, most active. Four or five grammes of the scraped root are macerated in a quart of water for about five minutes. This solution, filtered, and given twice during the day, renders micturition easier, the urine becomes limpid, and cure follows in from ten to twelve days. Unlike nearly all other blennorrhagic remedies, Kava-Kava has no unpleasant taste. Its bitterness improves the appetite, and does not produce nausea.

The root contains, according to M. Cuzent, an essential oil of a pale yellow color, 2 per cent. of an acrid resin, and about 1 per cent. of a neutral crystalline principle called Kavahin or Methysticin, which is obtained in acicular crystals from a concentrated tincture. Kavahin differs from piperine and cubebin in being colored red by hydrochloric acid, the red color changing on exposure to air into a bright yellow; and in being colored by sulphuric acid purplish violet, which passes into green. The root contains also nearly half its weight of starch. In addition to its effects on the urinary organs, it is also said to be one of the most powerful sudorific agents known.

The Quinine Flower.

J. DABNEY PALMER, M.D., of Florida, sends to the *Journal of Pharmacy* the following description of the quinine flower. He describes it as an annual, from twelve to eighteen inches high; having an erect, green stem, linear leaves of about one-half to one inch in length, and small white flowers. The root consists of numerous slender fibres.

"It is a native of Florida, and is found most abundantly in flat pine woods, in a moderately dry soil, making its appearance in March or April, and flowering from July to September. The specimens furnished me were gathered three or four miles south of Monticello, in Jefferson county. In the lower portions of the county it is very abundant, and is successfully employed by those living in its vicinity for the cure of different types of malarious fever—the whole plant being used, either in the form of decoction or extract, and given *ad libitum*, or until the patient feels the effects of quinine in his head. It is a curious fact that persons brought under the influence of this remedy experience similar sensations—such as tension or fullness in the head, ringing in the ears or partial deafness—as when under the influence of quinia, and hence its name. Its reputation as an anti-periodic was established during the late civil war, when, owing to the scarcity of quinia, every opportunity was offered for testing the relative value of various substitutes.

"The quinine flower is intensely and permanently bitter, yielding its properties to water and alcohol. A saturated tincture, in doses of one teaspoonful every two hours, was found sufficient to break the paroxysm of intermittent fever. Larger quantities, however, may be given in obstinate cases, or in the remittent form of the disease."

Some of the flowering plants having subsequently been sent to Professor Maisch, the latter reported on the specimens as follows:

"The plant was found to belong to the natural order of Gentianaceæ and to the sub-order Gentianeæ, having the corolla lobes twisted (contorted) in the bud; the distinct style being deciduous, it must be placed into the section to which Erythræa and Sabbatia belong. Its botanical characters agree with those of the last-named genus, and more particularly with the group which has the white or purplish flowers scattered on alternate peduncles, and the corolla five-parted. On comparing it with the American species in the College herbarium of Dan. B. Smith, it was found to correspond with a specimen of *Sabbatia Elliottii*, Steud., which is marked *ex herbar. Chapmani*. This plant is described in "Chapman's Flora of the Southern United States" as follows:

'Stem low, terete, paniculately much branched from near the base, the branches diffuse; leaves small, sessile—the lowest obovate, the upper linear; lobes of the corolla 3 to 4 times as long as the short filiform calyx lobes. (S. paniculata, *Ell.*) Open pine barrens, Florida to South Carolina. Aug. and Sept. Stems ½ to 1½ feet high. Leaves 3 to 6 inches long. Corolla 8 to 10 lines wide.'

In both the herbarium specimen and the plants sent by Dr. Palmer, the calyx lobes are more prominent than might be supposed from the description given; but they are evidently described as *short* in comparison with the much longer calyx lobes of Sabbatia stellaris, gracilis, and allied species, in which they are about equal in length to the corolla, while in the species under consideration they are about one-third the length. The lowest leaves are obovate, those a little higher on the stem oblanceolate, with an acute point, and become rapidly narrowed to a linear shape. The stems of the plants recently received are from twenty to twenty-four inches high, and consequently rather exceed the height as given by Chapman.

"The herb has at first an herbaceous taste, which gradually develops into a pure and persistent bitter, free from astringency.

"The popular name *quinine flower* appears to be confined to a small locality, probably to only a portion of Florida; at least, I have not been able to find it in any of the floras or popular botanical works of the United States. Porcher's "Resources of the Southern Fields and Forests," p. 556, however, mentions Gentiana quinqueflora under the names of *Indian quinine* and *ague weed*, and states that 'this and the G. Saponaria are esteemed fully equal to the imported gentian; in large doses they are said to be laxative. Dr. E. P. Wood, of Wisconsin, has given this plant with success in intermittent fever.' He also gives a detailed account of the medicinal properties of Sabbatia angularis, the American centaury, and states that Sab. stellaris and Sab. gracilis possess properties similar to the former.

"This genus of North American plants is closely allied to Erythræa, of which several species (E. Chilensis, Centaurium, linarifolia, etc.) are still employed in different countries as tonics, and sometimes as anti-periodics; but we do not remember that effects resembling quininism have been ascribed to any of those plants, such as Dr. Palmer states are experienced from the quinine flower of Florida."

On Indian Hemp and its Active Principle.

THE home of hemp is Persia and the high plateau of Northern India, whence it has gradually spread to other countries, so as to be domesticated at present everywhere. Its narcotic properties, however, are only developed fully in its native home in Asia, and in certain parts of Africa, where it is used as a narcotic stimulant and intoxicant by nearly 300,000,000 of inhabitants.

A preparation, called Madjoun is sold in Algiers, which is powdered Cannabis sativa boiled with honey for a longer or shorter time, according to the desired consistence. Usually it is kept mixed with a certain portion of *Ras-el-hanout*, a spice-compound, containing nutmeg, cinnamon,

cloves, various peppers, ginger, galangal and Guinea grains. This mixture is also called *Kif*. The dose varies from the size of a hazel—to that of a walnut, according to the age, sex, and tolerance of the person using it. Most eaters of hashish also smoke the dried leaves of the plant, either alone or mixed with the so-called "tobacco of the desert," which, according to Dr. Guyon, is a species of Hyoscyamus.

Dr. Preobraschensky, who accompanied the expedition to Chiwa in 1873, furnishes the following information on the Hashish of Central Asia. "This article occurs in the bazaars of large cities of Middle Asia in the form of plates, or cakes of various shapes, mostly five to fifteen inches long, five to ten inches broad, and one to three inches thick; externally they are dark brown, internally greenish or brownish, of firm consistence, very tough, and almost incapable of being broken, but easily cut into fine shavings. They are prepared as follows: The resinous juice from the fresh unripe flower-tops is collected during spring, mixed with sand and water to a doughy mass, which is spread upon a surface of clay and dried until it can be cut with a knife into plates. In a few days more the excess of water has evaporated, and the substance is ready for use. It is called Hashish by the Russians, Nascha by the natives, Bang and Gunjah by the Persians, and is exported from Bochara to Chiwa, Tashkend, Kokant (Chokand) and other places.

The active principle of hashish has been supposed to be resin. Dr. Preobraschensky has, however, lately subjected hashish to a chemical analysis, and has found an alkaloidal body—not only in the commercial substance, but also in the flower-tops of hemp itself, and the pure extract prepared from it—which was recognized as *nicotia*. 150 gm. of the herb, distilled with water, furnished 25.4 mgm. of nicotia; 50 gm. of the herb, distilled with caustic lime and potassa, yielded 335.28 mgm.; 5 gm. of the extract of Cannabis Indica, dissolved in alcohol and distilled, yielded a distillate containing 91.14 mgm. of nicotia, and 2 gm. of the extract, distilled with caustic lime and potassa, furnished 63.5 mgm. of the same alkaloid.—*Pharm. Zeit. f. Russl.*, 1876, 705.

Cyclamin or Arthanatin.

Prof. De Luca, of Naples, has ascertained that cyclamin may be used as a substitute for curare, and recommends it as a remedy against tetanus. *Cyclamen Europæum* L., "sowbread" or "hogs' bread," nat. fam. Primulaceæ, is a native of southern, eastern, and central Europe, and contains a poisonous glucoside in the fresh tubers. Drying, boiling or roasting the latter entirely destroys the substance. These tubers are used in Sicily, after proper treatment, as food for hogs, and are even eaten, roasted, by the common people in some parts of Russia. When eaten in the fresh state, the roots produce vomiting and diarrhœa, often with inflammation of the intestinal canal and sometimes with fatal effects. They were used already by the ancients, and Dioscorides as well as Pliny recommend them as remedies against jaundice, constipation, cutaneous eruptions, enlargement of spleen, freckles and lymphatic swellings; besides, in form of decoction, against the bite of poisonous serpents and as an external application to wounds. While the juice of the fresh tubers, when absorbed by the blood from wounds, is apt to have fatal effects, the application of a decoction, in which the poisonous substance must have been destroyed, to wounds is unobjectionable. Radix Cyclaminis or R. Arthanitæ was yet officinal about one hundred years ago in Germany.

Saladin, Buchner, Herberger, De Luca, and Martius have prepared cyclamin and studied its effects. The two last-named investigators prepared it from air-dry, Saladin from fresh tubers. These are gathered in autumn, pounded to a pulp, extracted with a small quantity of water, the extract is evaporated at a temperature not exceeding 60° C., the syrupy residue exhausted with absolute alcohol, the alcoholic solution treated with animal charcoal and then allowed to evaporate spontaneously in a warm place.

According to Saladin, cyclamin forms small white crystals; according to Martius and De Luca, however, a white amorphous mass, possessing no odor, but a very acrid taste. It belongs to the chemically indifferent or neutral principles and has the composition: $C_{30}H_{34}O_{10}$. It is easily soluble in alcohol and water, insoluble in ether, chloroform and carbon disulphide. The aqueous solution, according to De Luca, foams like soapsuds, and when heated to between 60° and 70° C. separates the cyclamin in a coagulated form. Concentrated sulphuric acid dissolves it with a yellow color gradually passing into violet. By boiling with dilute mineral acids it is separated into glucose and cyclamiretin, which latter is insoluble in ether and water, but soluble in alcohol. Emulsin produces the same decomposition at 30–35° C.

Pelikan's experiments with this substance upon frogs show that it belongs to the irritant poisons. Schroff administered it in quantities of 0.2 gm. (3 grs.), and the toxic effects disappeared after the lapse of about one hour.—*Pharm. Centralh.*, 1877, 17.

Blue-Glass Science.

There is nothing more reassuring in these days, when new "isms" of the scientists are slowly sapping the foundations of cherished belief, than to remember that, after all, the much-vaunted dicta of Nature are yet opposable by the sound operations of honest common sense. See, for example, how one of our evening dailies, tossing the dogmas of so-called science contemptuously aside, evolves such profoundly original thoughts as these, to explain the lucid blue glass theory of General Pleasanton: "The blue glass presents

an obstruction to the sun's rays which can only be penetrated by one of the seven primary rays—the blue ray; the remaining six rays, travelling with a velocity of 186,000 miles a second, falling upon the blue glass, are suddenly arrested; the impact evolves upon the surface of the glass friction, heat, electricity, magnetism; the heat expands the molecules of the glass, and a current of electricity and magnetism passes through it into the room; this current, falling upon animal or vegetable life within, stimulates it to unusual vigor. Certainly the results achieved, and abundantly certified to, are marvellous, and sufficient to provoke further experiments and inquiry."

"Prior to these splendid original discoveries of our cotemporary," says the *Scientific American*, "we ignorantly believed that blue glass only partly sifted out the orange and yellow rays from the spectrum, and that, with this exception, it acted merely as a screen to diminish the intensity of all the rays. We also supposed that there was a sharp distinction to be drawn between sunlight after passing through blue glass, and the blue spectral ray; that in one case all the colored rays were more or less present, and that in the other but one was. But think of the utter dismay of such pretenders as Helmholtz, Tyndall, and Henry, when they learn that the undulatory theory of light with which they have so long taxed our credulity is overthrown—that of the seven principal rays, six bounce off from blue glass and distribute themselves over the adjoining neighborhood. That the glass is heated by the impact, and as the sun persistently emits more rays, there are more impacts and more heat. The glass gets hotter and hotter; but—mark the scientific acumen here—just as we are wondering whether it will reach the melting point, the pores open. It is the Turkish bath of Nature. Electricity and magnetism, no longer shut out, rush in between the separate molecules. Hand in hand, these great curative powers seek a proper subject. They meet (we learn from a report, also in our contemporary, of Pleasanton's triumph) a pig, or a young lady whose hair has come out, a heifer, a rooster, or a rheumatic child. Forthwith the pig fattens, hair equal to that produced by the finest *tricopherous* pervades the female scalp, and unusual vigor and general happiness prevail. Such is the boon which Pleasanton bestows on humanity, as elucidated by the original genius of our contemporary."—*Scientific Amer.*

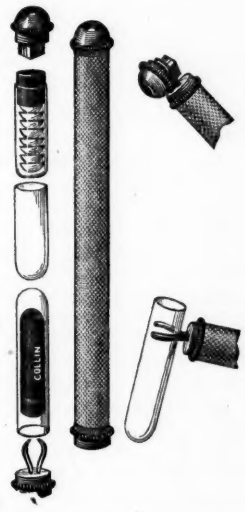
Artificial Beeswax.—A mixture of paraffin and common resin has found its way into our market as a substitute for beeswax. It resembles the genuine article very closely in color, fracture, and adhesiveness. The cakes are generally covered with a thin coat of genuine wax.

A New Asbestos Mine has been discovered at the San Jacinto Mountain, in California. It is situated on a tableland overlooking the desert; the ledge is thirty feet wide on an average, and over a mile in length. The supply is very abundant and of variable quality, some portions being very white, compact and heavy, while at other points it is bluish, hard, and stone-like.

PHARMACY.

A Pocket-Case Uroscope.

MR. YVON describes in the *Répertoire de Pharmacie* (1877, 8) a new apparatus for the examination of urine, which does not take up more room than an ordinary caustic-holder, and may be carried about in the pocket-case. The annexed cut explains the arrangement. A metallic tube is divided into two compartments and closed at each end by a screw-stopper. The smaller compartment contains a test-tube for heating urine; within this tube is a small gutta-percha case or tube filled with blue or red litmus paper. The stopper fitted to this compartment has an outer and an inner thread, and bears a clamp in its centre, which is pointed inside when the instrument is closed, but is reversed when using it, to form a test-tube holder. The second compartment contains a spare test-tube, and another tube closed with a rubber stopper, and containing pieces of caustic potassa. The metallic stopper of this second compartment contains a small microscope of sufficient power to examine urinary deposits. This instrument is intended to be inserted into the clamp of the other stopper when using it. The practitioner will be enabled by means of this convenient arrangement to examine the alkalinity or acidity of the urine, to search for albumen, or for sugar (by means of the potassa), and to examine the urinary deposits.



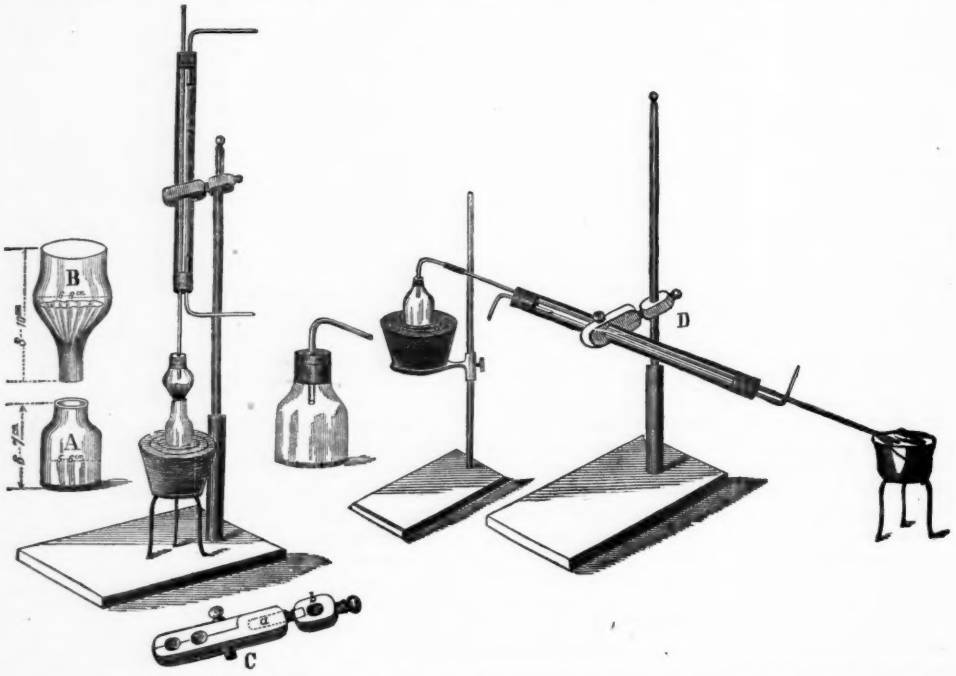
Preparation of Gold-Sponge.

GOLD-SPONGE, which is used by dentists for filling teeth, may be obtained according to C. F. Jackson, by the following method: A solution of gold in aqua regia, which may contain copper, is carefully evaporated until all excess of nitric acid has been removed. Oxalic acid is now added, and afterwards as much potassium carbonate as is required to dissolve nearly the whole of the gold to potassium aurate. More oxalic acid is now added, so as to be in considerable excess, and the whole is rapidly heated to boiling. The gold then separates as a fine yellow spongy mass, while any copper, which may be present, remains in solution. The sponge is removed, washed with hot water until every trace of acid is removed, and dried.—*Industrie-Bl.*, 1876, p. 401.

Apparatus for Milk-Analysis.

Mr. N. Gerber has constructed an apparatus which he considers superior to any other for the determination of fat in milk, and the construction of which will be understood by examining the annexed cut. Although his process does not differ very materially from those usually followed, we shall nevertheless give an abstract of it, as it is quite easy of execution, and less complicated than some others which have recently been recommended.

10 to 20 centigrammes or grammes of milk are diluted with 20 or 30 volumes of distilled water in a large beaker. Very dilute acetic acid is added in drops, under constant stirring, until the milk



begins to form small flakes. The beaker is now set into water of 75° C., and allowed to remain therein until the casein has separated in large masses, when it is filtered through a filter, previously dried and tared at 110° C. The serum is not only (as usual) boiled, but, in order to completely separate the albuminates, it is evaporated to one-fourth of its bulk. Any albuminates thus separated are added to the casein upon the filter, and the whole of it is washed with cold distilled water until the washings cease to be acid. The liquid portion is used to determine the sugar. The author prefers to determine casein and albumen together as "milk-albuminates," instead of estimating them separately.

These albuminates, together with the filter, are now transferred to the funnel-shaped vessel *B*, which is placed upon the flask *A*, previously weighed air-dry. The coagulum is first washed with a small quantity of alcohol, part of which runs into *A*, and to which about three-fourths of its volume of ether is added. The apparatus is then placed upon the water-bath and connected with the upright (reflux) condenser. The ether must be made to boil only very gently, lest it might rise into the funnel in too large a quantity and carry back with it some coagulum. The vapors of the ether are condensed in the upright condenser and fall back upon the coagulum, producing thereby an uninterrupted exhaustion. After some time a drop of the ether passing from the funnel *B* is allowed to evaporate upon blotting paper, when a total disappearance of the stain indicates that all the fat has been extracted. The same condenser is now turned about its supporting pivot *D*, so as to lie in an inclined position, *A* is connected with it, and the ether and alcohol contained in it are recovered by distillation. The residue in the flask, dried at 105°–110° C., represents the fat; the remainder of the coagulum, dried at the same temperature, the casein and albumen.—*Ber. d. Deutsch. Chem. Ges.* 1876, 659.

Fluorescein as a Test for Acids and Alkalies.

In a manufactory of aniline colors at Frankfort, fluorescein has been used for a considerable period in place of litmus as a test, and is found to possess advantages superior to those of carminic and rosolic acids, and eosin, which have also been used for this purpose. The beautiful fluorescence

of its solutions disappears suddenly in the presence of the least trace of free acid, and is at once brought back by free alkali. These transitions are so sharp and characteristic that no doubt can exist as to the character of a liquid. Further, carbonic acid, which retards the transition with litmus, has no influence with fluorescein. The new substance is to be especially recommended in colored solutions, where the coloring is not too strong; the disappearance and return of the fluorescence is almost more manifest here than in colorless solutions. On the other hand fluorescence is inapplicable in the presence of free acetic acid, which dissolves it also with fluorescence. It is also not advisable to use it where fine white precipitates are suspended in colorless solutions (*e.g.*, in sulphuric acid with baryta), as these mask the fluorescence. The precipitates must be allowed to settle before the indicator can be used to reveal the reaction.—*Polytech. Rev.* from the *Eng. Mech.*

Notes on Perfumery.*

THE art of compounding perfumes is an ancient one. It was practiced by the early Egyptians and other Oriental nations, and with them perfumes were in frequent use. In Holy Writ Moses speaks of being directed to take sweet spices, stacte, onycha, galbanum, with frankincense, and confection them into a pure and holy perfume after the manner of the apothecary, to be offered up to the Lord; and in Proverbs we read of epicures indulging in the luxurious use of costly perfumes. The Greeks and Romans used perfumes freely, as well on their persons as at their feasts; they were also used with flowers at sacrifices, to regale the gods. These fragrant compounds were in demand for theatres and other places where crowded audiences assembled, where their use subdued the offensiveness of a vitiated atmosphere. Different nations preferred different odors; with one the violet was the most popular, while others gave preference to the rose.

From the frequent mention of perfumes in the form of ointment, it would appear that the solvent powers of fatty matters over the odorous principles of flowers was among the earliest discoveries in this department. Subsequently fragrant waters were in great demand, and costly as these articles of luxury then were, they were nevertheless largely consumed. Grave men at times protested against the prevailing extravagance, and philosophers declared their aversion to perfumes. "There is the same smell," said Socrates, "in a gentleman and a slave, when both are perfumed;" hence, in his opinion, the only odors desirable were those arising from honorable toils and "the smell of gentility;" but in spite of protests the wealthy perversely and persistently followed their own tastes, anointed their own bodies, pomaded their hair, and bathed their limbs in fragrant waters, as though the thoughtful ones had never spoken.

In later times, with the advance of civilization, the use of perfumes gradually extended to other nations, culminating in their general use throughout the civilized world. In some countries there was, for a time, stout opposition to the introduction of all such preparations. In England it was thought to be a fit subject for legislative control. In 1770 an act was introduced into the English Parliament as follows: "That all women, of whatever age, rank, profession, or degree, whether virgins, maids, or widows, that shall, from and after such Act, impose upon, seduce, and betray into matrimony any of His Majesty's subjects by the use of scents, paints, cosmetic washes, artificial teeth, false hair, iron stays, hoops, high-heeled shoes, bolstered hips, shall incur the penalty of the law now in force against witchcraft and like misdemeanors, and that the marriage, upon conviction, shall stand null and void."

In large cities the manufacture and sale of perfumery is sometimes carried on as a separate occupation, yet, as a rule, this department of business, as in ancient days, is still associated with the trade and mysteries of the apothecary. Some may perhaps have but little sympathy with the manufacturer of perfumery, and may think that it were better handed over to the hairdresser or dealer in notions, and that the apothecary should devote his time exclusively to the more important duties of dealing out medicines, pure and simple, to meet the requirements of physicians and the wants of suffering humanity. This latter is doubtless the most legitimate and beneficent exercise of the apothecaries' skill, and ought always to be regarded as of primary importance; yet he will often have spare hours when he can enjoy the pleasures connected with the compounding and blending of odors, and at the same time develop a profitable and time-honored branch of his business.

The cultivation of the olfactories is an advantage to the pharmacist. The nose is an organ whose importance he cannot ignore in his business, and it is doubtful if better training can be found for it than in the compounding of perfumes. We all think it a gain to have a fine ear for music; why should we think less of an exquisite nose for odors? Surely this prominent member is as capable of cultivation as is the ear, not that an unusual development is desirable in either case, but rather the making the very best use of the organs with which we have been supplied. There are harmonies and discords in perfumes as in music; Piesse has reduced them to a scale which he calls the gamut of odors. "If," says he, "a perfumer desires to make a bouquet from primitive odors, he must take such odors as chord together; the perfume will then be harmonious."

For some time past the tendency has been to turn over the manufacture of perfumes too much to the specialist. This has probably resulted mainly from two causes,—first, the difficulty of procuring the materials used in the making of perfumes in a state of purity, and in the second place,

* A paper read at the meeting of the American Pharmaceutical Association in 1876, by William Saunders, of London, Ontario.

for want of plain and practical information on the subject. The first obstacle is less felt now than formerly, and to aid in the removal of the second is the main object of the present paper. My purpose is to place within the reach of every one of our members such information as will enable him with a little attention to equal the finest productions of a Lubin, an Atkinson, or a Rimmel.

I have now before me samples of twenty different extracts, any of which will, I think, compare favorably with the best of those imported. I shall first briefly refer to the ingredients which enter into their composition, and afterwards give the formulæ for their production.

Alcohol.—One of the first requisites in the manufacture of good perfumes is pure alcohol, free from fusel oil or other foreign flavor. This purer grade of spirit is known in commerce as pure spirits, silent spirits, or deodorized alcohol, and may readily be distinguished from ordinary alcohol by the absence of that peculiar pungency of odor which is present to a greater or less extent in most commercial samples.

Ottos or Essential Oils.—It is of the greatest importance that these should be strictly pure and of the finest quality.

Pomades.—From these are prepared some of the simple extracts in the appended formulæ, such as jasmine, tuberose, and cassia. The quality must be that known as triple pomade. The simple extracts are prepared as follows: one pound of the pomade is cut in small pieces and placed in a bottle of sufficient capacity, in which is put a pint of pure spirit. Place the bottle, suitably stoppered, in a water-bath, and apply heat sufficient to barely melt the pomade, shake well together, and repeat the shaking frequently until the fatty matter solidifies. In this way the pomade will be reduced to a finely divided or granular state, permeated thoroughly by the spirit. Allow this to stand for several days, giving it an occasional shake, then drain off the liquid extract into another bottle; if this fall short of a pint repeat the operation with a sufficient quantity of alcohol to make up this measure. By subsequent and similar treatment, a second and even a third quantity of extract may be made, which although much weaker, will be found useful in the preparation of cheaper perfumes.

Extract of Orris.—Seven pounds of finely ground orris root of good quality are treated by percolation with pure alcohol until one gallon of extract is obtained.

Extract Vanilla.—Take four ounces of vanilla beans of the finest quality, powder finely in a mortar with a sufficient quantity of dry white sugar (from four to six ounces); pack in a percolator, and percolate with proof spirit until one gallon is obtained.

Extract Tonka.—Take one pound of tonka beans, reduce to a coarse powder, and percolate with alcohol, to make one gallon.

Extract Musk.—Take of pure grain musk of the first quality two drachms. Mix half an ounce of liquor potassæ with four ounces of proof spirit, and triturate the musk with this mixture until it is thoroughly softened and reduced to a creamy state; add enough proof spirit to make up about one pint, stir well, then allow the coarser particles to subside, and pour off the supernatant fluid. Rub the coarser portions again with a fresh portion of spirit, proceeding as before, and repeat the process until the musk is entirely reduced, and the quantity of extract measures three pints. Allow this to stand for a fortnight, with occasional shaking, when it will be ready for use.

Extract Styrax.—Eight drachms of styrax balsam dissolved in one pint of alcohol.

Benzoic Acid.—Only that prepared from gum benzoin should be used.

[For the formulæ accompanying this paper, see page 92.]

On the Chemical Composition of Muriate of Morphia.

A COMMITTEE appointed by the *Société medico-pratique* to inquire into the causes of the alleged uncertain results obtained with the muriate (or hydrochlorate) of morphia, report that the probable primary cause has been the variation in the statements regarding the chemical constitution of the salt, as given by various authorities. Owing to the fact that the salt was regarded to contain more or less water of crystallization by different investigators, it was said to contain 75.9, 76.15, 80.0, 88.74, and even 90 parts of morphia. The true percentage is given correctly by the Codex as 75.9 of the alkaloid (understood as anhydrous) in 100 parts of the salt. The committee recommend two methods for preparing stable solutions: one consists in dissolving the salt in water distilled from meadow-sweet (*Spiræa ulmaria* L.*); the other consists in the addition to the solution of one-tenth part of alcohol.—From *Rép. de Pharm.*, 1876, 728.

A New Ureometer for Clinical Use.

THE exact methods for the determination of urea in organic liquids are far too complex and tedious to be of more than occasional service to busy medical men, whilst the readier methods are not sufficiently accurate to be of more than approximate value. The method of estimating urea by means of a solution of sodium hypobromite, given by Hüfner,† and the modification of it proposed by Russell and West,‡ are very convenient for clinical purposes, but even these leave something to be desired on the score of accuracy.

[In the *Practitioner* for January of this year Drs. Russel and West state that they have found the hypobromous solution to decompose in hot weather more quickly than they expected, and that it is very important that it be freshly prepared.

They draw especial attention to this and sug-

* See NEW REM., v., 253. The oil of Spiræa contains salicylous acid.

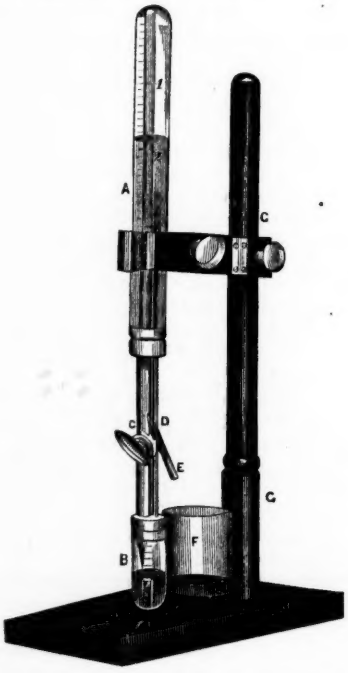
† *Journ. f. Prakt. Chem.* [2], 3, 1.

‡ *Practitioner*, Feb., 1875.

gest that the solution be prepared in the following manner:

A solution of caustic soda is made in water in the proportion of 100 grammes of solid caustic soda to 250 cc. of water. This solution may be made in large quantities for it will keep good for a very long time. To part of this solution bromine is added in the proportion of 25 cc. to every 250 cc., of caustic soda solution *at the time it is required for use.*]

With the view of simplifying the operation of ureometry to the utmost extent compatible with the necessary accuracy, M J. G. Blackley, of London, devised the form of apparatus represented in the cut. It consists of two graduated tubes, a larger one, *A*, of about 75 c.c. capacity, and a smaller one, *B*, of about 15 c.c. capacity, closed by perforated india-rubber stoppers through which



pass the tubes *C* and *D*. *C* is the wider of the two, and is provided with a glass stop-cock. Its lower extremity drawn to a fine point, descends about half way into the tube *B*. *D* is a narrower tube and ascends about half way inside *A*. *E* is a short, slightly bent tube, passing through the india-rubber stopper into the tube *A*, and serving as an egress for the superfluous contents of *A*, which are collected in the beaker *F*, the whole being supported by the wooden stand *GG*.

The method of using the apparatus is as follows:

The tube *A* is filled with a solution of sodium hypobromite, and its stopper inserted. Then 5 c.c. of the liquid to be examined are placed in the tube *B*, and its stopper (which has previously already been adjusted upon the ends of the glass tubes *C* and *D*) is inserted to the level of a scratch on the outside of the tube, the stop cock being turned off. The apparatus is then placed in position on the stand, and the stop-cock gradually opened. The hypobromite solution flows down the tube *C*, decomposition takes place, and the gases evolved, ascending through the tube *D*, are collected in *A*. The superfluous hypobromite solution flows out through the tube *E* into the beaker *F*. To complete the operation, the apparatus is removed from the stand, after placing the finger over the mouth of the tube *E*, and agitated for a few moments. It is then replaced, and after allowing time for the froth to subside, the quantity of the gas collected is read off. After subtracting the small constant of air contained in the tube *B*, the remainder gives by calculation the quantity of urea present in the 5 c.c. of liquid examined. Under ordinary circumstances the whole operation may be completed in five or six minutes.

Instead of having the tube *A* graduated into cubic centimetres, it is convenient to have the graduation indicate at once the percentage of urea, as is the case with the tube supplied with Russel and West's ureometer.

Mr. Blackley furnishes some analytical evidences of the accuracy and utility of this method, and adds that the apparatus may be had from E. Cetti & Co., of Brooke Street, Holborn, London.—*Journal Chem. Soc.*, Nov.

On Emulsions.

THE following paper was read at the last meeting of the *American Pharmaceutical Association*, by Edmund Gregory, Lindsay, Ont., in answer to Query 39: "How much acacia is needed to emulsify perfectly the fixed or volatile oils and balsams?"

"There exists so much difference of opinion as to the comparative success of various methods for producing emulsions, that it gives rise to a suspicion, there may be an equal difference in the estimate of what qualities are essential to the constitution of a perfect emulsion. Hence the necessity of a fixed standard of excellence. Such a standard we find in the milk of the cow. An emulsion, then, should be white as milk, and should have its fat-globules too small to be visible to the unassisted eye, and so well suspended that, although on standing a cream-like layer may rise to the top, it will readily reunite on shaking. Adopting this standard, the writer will endeavor to enumerate the various methods proposed for making emulsions, and to give the results of actual experiment. Considering oil of turpentine as a fair type of the volatile oils, and that they are the most difficult class of substances to operate with, researches have been mostly confined to that drug. Premising these remarks, I proceed to consider—

1. The method which directs that equal parts of mucilage of acacia and oil should be put into a bottle and well shaken together, the requisite quan-

tity of water being gradually added. If the mucilage be fresh, the bottle only partially full, and the shaking very vigorous, tolerable results can be obtained with castor oil, moderate results with balsam copaiva, and with oil of turpentine a total failure. But in all cases the oil-globules are distinctly visible to the naked eye.

2. Equal parts of oil and mucilage are put into a mortar together, and briskly triturated.

This gives barely tolerable results with the balsam and thicker oils, but with oil of turpentine it is a total failure, no amount of labor producing the slightest effect.

3. Equal parts of oil and mucilage, the oil to be gradually added, triturating briskly after each addition until the portion added is emulsified.

A fair result can be obtained by this process, if the operator have plenty of patience, and a liberal supply of muscle, but the product is too dark in color. The oil-globules are not visible to the naked eye, but can be easily seen with a magnifying power of three diameters. It separates into two layers in two and a half hours, the lower layer being dark, but not watery.

4. The next process is that wherein equal parts of mucilage, water and oil are put into a suitable vessel, and agitated with an egg-beater until emulsionized.

This yields a tolerable result, is simple, and requires no skill, but is rather laborious, and yields a product very dark in color. The oil-globules are not visible to the naked eye, but quite distinctly under a power of three diameters. It separates into two layers in three hours, the lower layer being very watery.

5. The next process tried was that of Mr. Charles F. Hartwig (published in the *Pharmacist*, Oct., 1875), in which one part of mucilage and one part of water are put into a suitable vessel, thoroughly mixed by being drawn up into and ejected from a small vaginal syringe, and one part of oil having been added, the emulsion is produced by the use of the syringe alone in the same way.

This process yields excellent results, but the emulsion is not quite as white as it should be; the process is rather tedious, and the after-cleaning very troublesome. It is the best of the processes in which officinal mucilage is employed. The oil-globules are invisible to the naked eye, but are distinctly seen with a power of three diameters. It separates into two layers in twenty hours, the lower layer being milky in appearance.

6. A process, published in the *Journal of Pharmacy* in February, 1872, by Mr. J. Winchell Forbes, and apparently designed more especially for oil of turpentine, in which he directs that one part of oil shall be put into a bottle and shaken, then one-eighth part of pulverized acacia, and after thorough agitation half a part of water added, the whole to be then vigorously shaken until emulsified.

The resulting emulsion is deficient in whiteness. The oil-globules are distinctly visible, as a multitude of gem-like points, under a magnifying power of three diameters, and are also visible to the naked eye, if a drop be placed on a plate of glass and held up between the eye and the light. It separates into two distinct layers in fifteen minutes, the lower layer being quite watery, but it easily reunites on shaking.

7. If, however, in the preceding process, three-eighths of a part of pulverized acacia be used instead of one-eighth, a very good result is obtained, the product being much whiter, the oil-globules about half the size, and quite invisible to the naked eye. It now takes twelve hours to separate into two layers, the lower layer, however, being still watery.

8. The next process for consideration is described on page 343 of *Mohr and Redwood's Pharmacy*, English edition of 1849, in which one part of pulverized acacia and one and a half parts of water are put into a mortar, and after thorough trituration three parts of oil are added gradually, each separate portion being emulsified before another is added. The results are admirable, the product being white as milk. The oil-globules are not visible to the naked eye, but slightly so under a power of three diameters, and it does not separate into two layers under twenty-four hours, the lower layer having the appearance of milk.

9. The last process which will be referred to is recommended by Mr. Hans M. Wilder, in the *Druggist's Circular* for December, 1874. One part of pulverized acacia and two parts of oil are put into a mortar and rubbed up together; one and a half parts of water are then added at once, and with a few revolutions of the pestle the whole is emulsified.

It has yielded in my hands the very best results. The emulsion is beautifully white, scarcely to be distinguished from milk, and the necessary manipulations are very speedy and simple. The oil-globules are totally invisible to the naked eye, and not very perceptible with a power of three diameters. It separates into two layers in twenty-four hours, the lower layer being quite like milk, whilst the upper would pass for cream, and at the time of writing this, four days after making, retains the same appearance, and is by far the best out of six samples that are standing undisturbed before the writer.

In summing up results, the conclusion must be arrived at, that those who desire an unexceptionable emulsion, must abandon those processes in which officinal mucilage is used, and adopt one, which calls for pulverized acacia. Any inquirer, who will take the pains to prepare a series of emulsions according to the formula as given above, and will set the bottles in a row before him, will in a few hours receive a very striking lesson. Of these processes No. 9, of Hager and Mohr, noticed by Mr. Hans M. Wilder, is the quickest, is simple, demands no apparatus that does not exist in every pharmacy, and yields unexceptionable results. Next to this comes process No. 8, taken from *Mohr and Redwood's Pharmacy*, which yields an admirable product, but is a little more tedious than the preced-

ing. No. 7, Mr. Winchell's process improved, is admissible when a pestle and mortar cannot readily be obtained from any accidental cause, but it will scarcely succeed with the more viscid oils or balsams, such as castor oil or balsam copaiva. Of the processes using officinal mucilage, the only one yielding a good result is that of Mr. Hartwig, No. 5, in which the vaginal syringe is used.

In answer, then, to the query at the head of this paper, the writer would say, that three drachms of acacia in fine powder are necessary to emulsify one ounce of any of the volatile oils, and that a little less (about two drachms) will answer for the fixed oils and balsams, and that to this quantity of gum four drachms and a half of water must be added (no more and no less), and that either the water or oil may be added first to the gum, but it is quickest to add the oil first, and well triturate before adding the water. Less gum can be made to yield a good result by a careful operator, but as a general practical working rule it may be said that three drachms are necessary for one ounce of oil.*

Powdering Apparatus.

THE simple apparatus, which is figured in the accompanying cut, is intended chiefly for the use of those who are compelled to do their own powdering, without having access to steam or other power; and it is said to give great satisfaction to all who have used it. Flaxseed-meal, mustard, gum arabic, cinchona bark, rhubarb, alum, cream of tartar, cubebs, and many other brittle drugs are rapidly comminuted by it, and may be obtained of any degree of fineness by passing the powdered mass from time to time through the proper sieves. About 75 pounds of flaxseed and about 50 pounds of mustard may be obtained in salable powder during an ordinary day's work. The apparatus takes up but little room, and is nevertheless very solid and durable. The pestle weighs about 56 pounds, and its fall being about 1 foot, the power is very large. The powerful gearing of the lifter is incapable of being broken, and in spite of the weight of the pestle the number of strokes per minute may reach 55 or 60 without difficulty. The price, in Paris, varies from 170 to 280 francs.

* Forbes's method of making an emulsion of oil of turpentine will be found in our last volume, V., p. 287.—ED. N. R.

Distinctive Tests for Carbolic and Salicylic Acids.

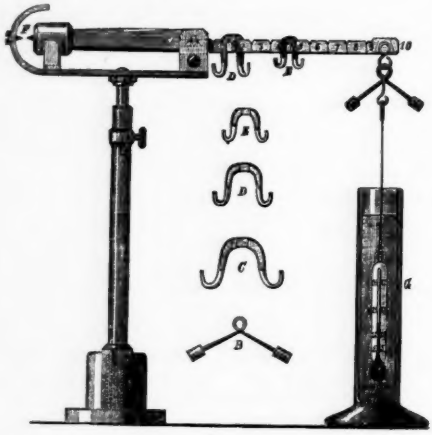
ACCORDING to Almén the delicate reaction of ferric chloride with salicylic acid may also be used to distinguish carbolic from salicylic acid in very dilute solutions. Both acids give a violet color with the iron salt, but, while the utmost limit of perceptibility of the tint in the case of carbolic acid is 1 in 3,000, the color produced by salicylic acid remains intense in dilutions of 1 in 100,000, and is still discernible even in solutions containing only 1 in 1,000,000. The most sensitive test for both acids is said, by Almén, to be the well-known Millon's reagent, prepared by dissolving mercury in ordinary fuming nitric acid and diluting with two volumes of water. The less acid the reagent is, the more delicate a test it is for both salicylic and carbolic acids. Five or ten drops of Millon's reagent are added to about 20 c.c. of a solution of these acids, and the mixture is heated to boiling, which causes the precipitation of a yellow basic salt of mercury. To the boiling hot liquid as much nitric acid is added as is required to redissolve the precipitate. In presence of either acid, the solution assumes an intensely red color, which increases in depth by standing. The limit of perceptibility of this reaction is one in 2,000,000 for carbolic acid, and but little less for salicylic. In dilutions of one in 400,000, the color appears instantaneously, in higher dilutions only after the lapse of ten to fifteen minutes. The best method to detect the presence of carbolic in salicylic acid or in salicylates is probably the well-known reaction with ammonia and sodium hypochlorite,* consisting in the production of an intensely blue color, which turns red on addition of an acid, and is restored by alkalies. Free chlorine and the presence of free acids interfere with the reaction, especially in warm solution; hence an excess of sodium hypochlorite, especially in very dilute solutions, must be avoided, and a sufficient quantity of ammonia must be added to maintain an alkaline reaction. Solutions of phenol, containing one in 5,000, give the reaction at once; dilute solutions, containing one in 30,000, after about fifteen minutes; and even still more dilute solutions, up to one in 50,000, after twenty-four

* See NEW REM., v., 343 (b, 11.)

hours. Solution of salicylic acid, even concentrated (one in 1,000), does not give this reaction, which enables us therefore to detect the presence of phenol in salicylic acid.—*Pharm. Zeit.*, No. 100.

Mohr-Westphal's Specific Gravity Balance.

THE construction of this ingenious instrument, which permits very exact and rapid determinations of specific gravity, depends upon the principle, that the loss of weight, which one and the same body suffers in different liquids, is proportional to the density of the latter.



Upon one arm of the balance, which is divided into 10 equal parts (see figure), is suspended, by means of a fine platinum wire, the thermometer *A*, which is exactly balanced by the other arm. *B*, *C*, *D* and *E* represent the shape of the weights, the first three being made of brass, the last of aluminium. *B* and *C* are each equal to the loss of weight (v) of the thermometer *A*, when immersed in water; *D* is equal to $\frac{1}{10}$ of v, and *E* is equal to $\frac{1}{100}$ of v.

If it is desired, for instance, to determine the specific gravity of urine with this balance, the urine is poured into the cylinder *G*, into which the thermometer *A* depends. The weights are then so attached, that, while *A* is completely immersed, exact equilibrium is restored, which may be recognized by the correspondence of the points at *F*.

Supposing it had been necessary, in order to restore equilibrium, to suspend *B* upon the division 10, *D* upon division 2, and *E* upon division 5: the specific gravity of the urine would be 1025.

Examination of Salicylic Acid.

PROF. H. KOLBE recommends the following method to ascertain the purity of a sample of salicylic acid: Dissolve a small quantity, about 0.5 gm., in about 10 parts of strong alcohol, pour the clear solution into a watch-glass, and allow it to evaporate slowly at the common temperature. The residuary acid forms around the margin of the watch-glass a ring of handsome aggregates of effloresced crystals. These are purely white, if the acid was entirely pure and recrystallized; but they are yellowish or yellow, if the acid was merely precipitated. If the ring is brownish or brown, the acid, although it may have appeared to be pure and white, is to be rejected as impure.—*Journ. prakt. Chem.*, 14, 143.

Dr. H. Hager gives a still better criterion of the purity of this acid. Having obtained some of the absolutely pure dialysed acid, manufactured by E. Schering of Berlin, he found that it did not impart any color to concentrated pure sulphuric acid. All other varieties of acid, although some of them stood Kolbe's test, imparted a more or less yellowish, yellow, or brownish tint to the acid. The most decisive test of salicylic acid for purity is, therefore, to add to a small quantity of it some colorless concentrated sulphuric acid, and to shake. The acid should remain colorless, or at most only assume a trace of color.

Mineral Oils.—Their Purification and Use in Pharmacy.

M. MASSON, of Lyons (*Pharmacologiste*), finds that mineral oils may be deodorized so as to fit them for pharmaceutical and other uses. The process is cheap and simple, and consists in treating them with—

	Parts.
Alcohol (95°)	500
Sulphuric acid	60
Nitric acid	60

per 100,000 parts of petroleum oil.

The acids are first introduced separately, by means of a funnel with a long tube reaching nearly to the bottom of the vessel. The spirit is then poured on the surface of the oil, and precipitates slowly, uniting with the acids. Heat and slight effervescence are thus set up, producing the distillation of a small quantity of nitrate of ethyl or nitric ether. The new products have a very agreeable smell, and the substances so treated take a yellowish tinge, and have also an agreeable odor. The operation takes about an hour, after which the oil should be well agitated and washed with water, and left to stand for eight or ten hours. The surface liquor, which is deodorized petroleum, is then decanted, leaving behind a mixture of acids, water and alcohol. This may be used in purifying what are known as fatty oils. It should be well stirred therein, and the mixture left for twelve hours, and afterwards twice washed with milk of lime. The oil is thus deprived of its acids and other foreign matters, and loses much of its rank smell. It will be found well adapted for lubricating purposes.

In pharmacy, the author has found petroleum purified and deodorized as above an excellent substitute for rectified spirit. Various tinctures for external use, camphorated, etherized, and chloroform solutions so prepared answer as well as with an alcoholic base.

The first trials were made in veterinary practice. Mixtures of deodorized petroleum with fats or glycerine are likely to prove of much value in the treatment of skin diseases, etc. A mixture of petroleum and glycerine has a very pleasant odor, and is said to be as efficacious as the preparations of sodic or potassic sulphide now in use.

In veterinary pharmacy, more especially, it is submitted, a very important saving would thus be achieved. Rectified spirit of 95° now costs in France 330 francs per 100 litres. An equal quantity of deodorized petroleum would cost only 80 francs.—*Chemist and Druggist.*

Labarraque's Solution.

A CORRESPONDENT of the *Industrie Blätter* recommends the use of sodium bicarbonate in excess, instead of the simple carbonate, to decompose chloride of lime, for preparing a solution of chlorinated soda. With the simple carbonate the mixture forms a sort of emulsion, from which it is not always easy to remove the clear liquid; while on using the bicarbonate, the precipitate becomes crystalline, and may be very readily separated from the liquid.

Ferric Chromate.

IF a solution of ferric chloride be added to a solution of neutral potassium chromate, a light orange-colored precipitate is produced* which contains, when dried at 40° C., 34.58 per cent. of ferric oxide and 65.42 per cent. of chromic acid, corresponding to the formula $Fe_2O_3, 3CrO_3$. This compound is insoluble in water, easily soluble in acids, is unaffected by sulphuretted hydrogen, and is therefore preferable to lead chromate as a pigment.—*Zeitsch. d. Oest. Ap. V.*, 1877, p. 12.

Utilization of Sea-Weed.

AT the Chemical Works at Aalbourg, in Jutland, Denmark, where about thirty tons of alkali are made per week by the ammonia process for obtaining alkali from sea-weed, Mr. Theowald Schmidt, the director of the manufactory, proposes to work, in conjunction with this process, a method devised by himself of treating sea-weed so as to obtain iodine, potash-salts, and other marketable products therefrom. In Denmark a very heavy duty is levied on the importation of common salt, while enormous quantities of sea-weed rich in iodine and potash can be obtained at small cost in the neighborhood of the works. Mr. Schmidt's process is as follows: After the sea-weed is dried and burned a concentrated solution of the ash is made and added to the liquor containing chlorides of sodium and calcium, left after the ammonia has been recovered in the ammonia-soda process by boiling with lime. The sulphates of potash, soda, and magnesia contained in the ash of the sea-weed are thereby decomposed, and hydrated sulphate of lime and hydrated magnesia are precipitated in a form which may be available for paper-making, as "pearl-hardening." The last traces of sulphates are got rid of by adding a small quantity of solution of chloride of barium. To the clear solution nitrate of lead is now added until all the iodine is precipitated as iodide of lead, which is then separated by filtration and treated for the production of iodine or iodides. After filtration the liquid is boiled, nitrate of soda is added to convert the chloride of potassium present into nitrate of potash. The latter is separated by crystallization. There remains a solution of common salt containing traces of ammonia from the previous soda operation and a trace of chloride of potassium. This solution is again treated by the ordinary ammonia-soda process for the production of tbicarbonate of soda and white alkali.—*The Quar. Jour. of Sci.*

Detection of Iodic in Nitric Acid.

THE common occurrence of the acid oxides of iodine in commercial nitric acid has already been pointed out by Friedburg,* and various reagents have been proposed to detect them. But it is extremely difficult and uncertain to obtain the same reaction even with the same solution under all circumstances. Mr. Ernst Biltz, who has introduced a novel method of analysis, proposes the following test as leading to absolutely certain results: Dilute from 3 to 5 gm. of the nitric acid in a test-tube (about 1.3 cm. wide), with an equal weight of water, mix the liquid with a few drops of starch solution, and allow a few drops of sulphuretted hydrogen water to flow on top. If the nitric acid contains even as small a quantity as $\frac{1}{100000}$ of iodic acid, a sharply defined blue ring of iodide of starch becomes visible, and is best seen by looking across the point of contact against a white background. Supposing 3 gm. of nitric acid had been used, containing 0.00005 of iodic acid, and supposing that the 10 gm. of mixture in the test-tube should be 70 mm. ($2\frac{3}{4}$ inches) high, the thickness of the iodide of starch layer will be about $\frac{1}{6}$ mm., and its weight about 0.025 gm. But since the reaction only extends to a minute fraction of the acid solution, the delicacy of the test, if calculated for the whole bulk of the 10 gm. of diluted acid, would be about 1 in 10,000,000.—From *Pharm. Centralbl.*, 1876, 401.

Solubility of Phenol in Water.

ACCORDING to W. Alexejeff, the solubility of phenol in water, and of water in phenol, increases rapidly towards 80° C. (176° F.), and at 84° C. (183.2° F.), both liquids are miscible in all proportions.—*Ber. d. D. Chem. Ges.*, 1876, p. 1810.

* R. Kayer, *Moniteur des produits chimiques*, v., No. 20.

* See NEW REM., v., 106.

THERAPEUTICS.

Metalotherapy.

SOME years ago a good deal was said of the theory of cure by local application of metals, by M. Bury, and great attention was attracted by his persevering efforts to bring to notice alleged curious effects produced by the application of metals upon surfaces deprived of sensation. Trousseau, among others, observed that when a metal was applied for a certain time upon the insensible surface of a limb, at the end of about a quarter of an hour an incomplete sensibility returned in a restricted zone of skin, and from that point spread gradually during the twenty-four hours over the whole limb. Sensibility returned, and at the same time the skin reddened, the temperature rose, and even the muscular force seemed increased. Strange to say, all the metals did not act in the same way with the various patients; on some it was gold which acted, on others copper or zinc, but the same metal always acted on the same patient. These observations have been renewed by Drs. Charcot and Dumontpallier; but their explanation is still quite unknown. At the instigation of M. Charcot, who has brought these facts once more before the Society of Biology in Paris, physicists, chemists, and physiologists are studying the question actively, and possibly some useful result may follow, either in information as to electrical relations of the body, or in respect to the therapeutical applications of the observation.

Salicylic Acid.

M. A. ROBIN asserted, in a communication to the Biological Society of Paris, that in typhoid fever salicylic acid almost constantly diminishes the quantity of urine excreted, and the quantity of indican increases under its use; moreover, it produces ulceration of the back of the throat, and even consecutive œdematous inflammation of the larynx. He recommends only very dilute solutions in typhoid fever, for fear of arresting the flow of urine. He had observed a buzzing in the ears as the result of the use of salicylic acid. M. Leven is opposed to the use of this substance in typhoid fever. Powerless in small doses, it causes serious trouble in the digestive system, which are especially dangerous in that disease. M. Lepine finds, also, that the acid is very slightly excreted in typhoid, and that it produces a buzzing in the ears, but less intensely and less constantly than with quinine. Valuable in some cases of acute rheumatism, it renders no service in typhoid fever.—*British Med. Jour.*

A Parisian correspondent of the same journal, speaking of the views of Professor Sée on the same subject, says:

"There is scarcely any drug in the whole Pharmacopœia, whose elimination from the system is more rapid than that of salicylic acid or its preparations. In consequence of this rapid elimination it is necessary to administer it in small doses and at short intervals—about every hour, for instance."

Curative Effects of mild continued Counter-irritation of the Back in Cases of General Nervous Debility and Spinal Irritation.

DR. ARTHUR GAMGEE recommends the compound mustard liniment (Br. Ph.) as the best available counter-irritant in these cases, as it produces a remarkably active irritation of the sensory nerves of the skin, which subsides to a great extent when the preparation is removed, but which can be renewed almost indefinitely without leading to any eczematous, pustular, or ulcerative condition. He finds this plan of treatment more successful than the use of iron, cod-liver oil, phosphorus, or the constant galvanic current. The theory of its action which he gives is, that counter-irritation exerts a tonic action on the local vaso-motor nerve centres.

In consequence of the expensive character of the essential oil of mustard, and the ethereal extract of mezereon which enter into the composition of this liniment, it is very commonly adulterated and is nearly inactive. When properly prepared, the liniment should possess a very pungent odor, and should produce an almost painfully acute sensation in the nostrils when it is smelled. If properly prepared a few drops of linimentum sinapis sprinkled over a pad of cotton-wool ten or twelve inches long and four or five inches broad, will suffice to produce, in a few minutes, pretty intense redness of the skin of the back, accompanied by more or less of the painful or burning sensation characteristic of mustard.

The general result of the use of this mode of counter-irritation is thus described: "On the first or second day of the treatment, the patient, if a delicate hysterical girl, may complain that the pain caused by the mustard is almost unbearable, and she may declare that the application cannot be continued. By diminishing the amount of mustard oil used, however, all such urgent objections on the part of the patient are removed. As soon as the application has been so controlled as to bring on merely an active glow and not unpleasant tingling of the skin, the patient declares that the increase in her strength is marvellous; the pain in the back and limbs undergoes a diminution, or, as long as the mustard counter-irritation is kept up, are completely in abeyance, the irritability of temper diminishes, and simultaneously the general health undergoes marked improvement.

"The increased feeling of vigor produced by the treatment is not illusory; as a rule, I have found that the improvement thus commenced has kept up so that a hysterical girl who has been for some weeks confined during the day to a couch to which she could with difficulty make her way from her bedroom, has in a few days cheerfully taken walks of considerable length."—*The Practitioner*, February.

On Goa Powder.

THE following remarks on this subject are by Dr. H. R. Crocker, in the *Lancet*:—

The botanical name of the plant from which it is derived is not known, but it has been referred to different species of Centrolobium and Cæsalpinia, growing in Brazil. They all contain the large proportion of eighty per cent. of chrysophanic acid, easily obtained by exhausting with hot benzole, its best solvent; on evaporation the acid is left as a yellow granular powder. Another more wasteful method is by sublimation, which yields a comparatively small quantity of yellow moss-like crystals.

The first cases were treated by painting on the patches a saturated solution of chrysophanic acid in benzole, which retains ten grains to the ounce in the cold. Cases of tinea circinata were cured by this in about half a dozen applications. Other cases were treated with an ointment consisting of chrysophanic acid, twenty grains; acetic acid, twenty minims; simple ointment, one ounce, according to the formula of Dr. Lima.

In India it is generally used made into a paste, with vinegar or lemon-juice, as mentioned by Sir Joseph Fayrer. The powder from which the acid was obtained was supplied by a city firm. After I had treated a few cases in this way, I received, through the kindness of Dr. Ringer, a canister of Poh de Bahia, sent direct to him from Bahia by Dr. Paterson. This was used in all subsequent cases, made into an ointment of the same formula as that above, the powder itself being employed instead of the chrysophanic acid, which existed in this specimen, according to the analysis of Mr. Gerrard, the hospital dispenser, in the proportion of eighty-two per cent. In a few cases an ointment of forty grains to the ounce was employed, and in all it was directed to be well rubbed into the patches every night. The presence of the fungus was in all cases established by the microscope before the application was commenced, and frequent microscopic examinations were made in the course of the treatment.

The following are the results obtained:—

Of nine cases of tinea circinata in various parts of the body, as the arms, neck, and face, all were cured in a week or ten days; in some a single application being sufficient. Some of these had had the disease several months, and had had other treatment.

Of tinea tonsurans twenty cases were treated, but the results were by no means so satisfactory; in most of them other remedies had been tried, and the disease had existed for some time. When tinea circinata and tinea tonsurans occurred together in the same case, the ringworm on the body was readily cured. Of the whole twenty, two were cured completely, one in six weeks, the other in two months. In seven there was certainly improvement—that is, where there were several patches some were cured, but in the other patches the hairs were still diseased. The remaining eleven cases were only slightly improved, though the treatment was kept up for at least three months, and even longer.

Nussbaum's Narcosis produced by Narceïne.

IT is known that the subcutaneous administration of a few centigrammes of morphia, about fifteen minutes previous to placing a patient under the influence of chloroform, although not interfering with the anæsthetic effect of the latter, prevents the complete loss of consciousness. This peculiar state is known as "Nussbaum's narcosis," and is particularly valuable during operations upon the face, in the mouth or in the fauces, as the patient is thereby enabled to prevent the blood from entering the larynx and trachea, and to obey all commands of the operator: opening the mouth, coughing, or spitting out when ordered to do so. Belladonna has likewise been observed to produce this result, when combined with chloroform. The similarity of effects between morphia and narceïa led Dr. Karl Heintz to try the latter for the same purpose, and he relates his experiences as follows:

"I had an opportunity of trying the combination upon a female patient, with eight carious teeth, which had to be removed. Fifteen minutes before the administration of chloroform I injected 0.02 gm.* of narceïne (muriate) into the left forearm. Narcosis was somewhat tardy, but when fully set in, and the patient was ordered to open the mouth, she obeyed at once to the fullest extent of her power. Being told to spit out, after the removal of some of the teeth, she leaned over, and did so. More of the teeth having been extracted, she was ordered to spit out again, and then to open her eyes and to see if she recognized any of the persons present. She looked at them all, and called them by their names. Immediately afterwards I extracted the remainder of the teeth, without any further administration of chloroform, and only when cutting off a small piece of flesh from her gums by means of scissors, did she remark that she had felt any pain; next day, however, she could not remember the circumstance. Having communicated these results to my chief, Prof. Nussbaum, he allowed me to employ the same method upon a patient, who was to be operated upon in the face on the following day. The same amount of narceïne was used as in the former case. Narcosis set in later than usual, but when fully established, no more chloroform was administered from the time of the first incision to the closure of the wound by sutures—nearly one-half hour. The patient showed no signs of painful sensation, coughed and spat out on command, and answered all questions. Having been brought to bed, he slept quietly a few hours, and in the evening he told me that he had felt no pain whatever, but perceived distinctly that he was the subject of some operation."—*Neues Rep. f. Pharm.*, 1876, 697.

* On the solution of this salt see pg. 83.

Analysis of One Hundred and Nine Cases of Rheumatism treated with Salicylic Acid and Salicin.

In the *Boston Medical and Surgical Jour.* of Feb. 8 is an interesting paper, with tables, by C. W. Brown, of cases of rheumatism lately treated at the Boston City Hospital, from which we make the following extracts:

"The average time to relief, that is, to the hour when the symptoms were distinctly ameliorated, was 1.46+ days, varying from three hours to four days. This is probably much too high, as in very few cases were more than ten to fifteen doses needed before marked benefit was experienced. The average time to complete cessation of pain was 2.85+ days, varying from twelve hours to fifteen days.

"The average amount of acid taken to produce relief was one hundred and fifty-four grains; the quantity varied fiom thirty to two hundred and ten grains. The amount required to produce complete relief from pain and mobility of the joints was 531.22 grains to each patient; to each attack, 343.73 grains. Deducting the three largest amounts taken, 880, 940, and 2250 grains, the average to each patient was 400.84 grains. The average time during which the acid was taken by each patient was 6.22 days, varying from one day to thirty-one days. Excluding cases 1, 19, 26, 36, and 103, the average number of days each patient was in the hospital was 18, varying from three to fifty-nine days.

"The unvarying effect of giving the acid in full doses, in acute cases, was to cause a fall of temperature, but never much below the normal point. The effect on the pulse and respiration was less marked, as they usually fell less rapidly. The pulse rate often increased for a time in weak or debilitated subjects.

"Experience has shown that the acid is much better adapted to acute than to other varieties of rheumatism. The author reports a number of actual cases of acute rheumatism, treated by ten-grain doses hourly, as a fair example of the effect on pulse, temperature, and respiration.

"The patients were usually placed upon treatment by the house physician soon after entrance, the common dose being ten grains every hour while awake, for twelve to thirty-six hours, when the symptoms were wholly or partially relieved.

"Then the practice has varied, the acid being omitted altogether, or reduced to ten grains every two or three hours for a time, to be again reduced and finally omitted in from ten days upward. Usually no opiates were given, and no attention was paid to the condition of the bowels. The acid was first taken in wafers, but it occasionally happened that an awkward patient would break one in his mouth and release the pungent acid, producing very unpleasant sensations, and perhaps a refusal to take any more. A substitute was found, in the service of Dr. Blake, in pills made with honey or molasses, containing 3½ grains each, about the size of a compound cathartic pill. They have been much more satisfactory, and have been almost exclusively used since. The various solvents, soda and ammonia salts, glycerine, etc., have been but little used. The number of cases treated with salicin is too small to base any definite conclusion upon as regards its value when compared with salicylic acid or any other method of treatment. It certainly acts more slowly than the acid. It has been used in six cases during part of the treatment, and in three during the whole. The dose varied from five to fifteen grains per hour, and was taken with no bad effect; in fact, those who took it throughout had excellent appetites, and made a rapid and thorough convalescence, instead of being left in a generally poor condition with no appetite, as was too often the case with those treated with salicylic acid. Of the six cases who did not take salicin continuously until recovery, four were relieved, and two were not relieved after taking it from two to four days. The three cases who took it throughout were acute, of moderate severity. The heart was normal in all. The average time to relief was 2⅓ days; to complete relief, 6½ days; the average amount taken was 346⅔ grains, ten grains every hour. The average time in hospital was 13⅓ days.

"There was relapse in one case. Because of its better general effect on the patient, salicin seems to merit a more extended trial."

Iodine and its Preparations in the Therapeutics of Infancy.

In a clinical lecture delivered at the Paris Hospital for Children, M. Jules Simon lays particular stress upon the following points:—Tincture of iodine should not be applied pure in tubercular children; it should be diluted with either glycerine or with some unguent. Neither iodide of potassium nor iodide of iron should be given to children under two years of age, except perhaps in cases of acute hereditary syphilis, where small doses may be administered. It may be given to the nurse if the child has not been weaned. Older children bear the drug well. Those who are especially benefited by it are patients robust in appearance, but with soft, inelastic flesh, and with manifestations of incipient scrofula. Iodoform is of great service in cases of ozæna and scrofulous wounds. Albuminuria has been observed by M. Simon in a large number of cases to follow painting on the surface with tincture of iodine, especially when it is applied to eruptions. Iodide of potassium produced the same result, but in a smaller degree. Under this head further investigations are promised.—*Boston Medical and Surg. Journal.*

Treatment of Sciatica.

The Practitioner a short time since sent out a form to be returned by such as chose to answer certain questions in regard to the treatment of sciatica. The following is a synopsis of the remedies recommended. The diversity of practice was

great, but the following is the numerical order: Quinine, 29; iodide of potassium, 28; colchicum, 27; bicarbonate of potash, 15 (14 speak generally of alkalies); iron, 14; arsenic, 11; opium or morphine, 10; guaiacum, 7; aconite, 7; mercury, 6; chloride of ammonium, 6; lithia, 4; actæa racemosa, 4; colocynth, scoparius, croton-chloral, and chloral, conium, henbane, turpentine, phosphorus, salicine, trimethylamine, each 1. Several recommend the combination of colchicum with magnesia, and one treated it with strychnine and arsenic.

As regards local measures, the following will show their comparative popularity: Hypodermic injection, 34 (of whom 12 use a combination with belladonna); liniments, 33; blisters, 23 (of whom 5 dress the blister with morphia); ointments containing analgetics, 5; counter-irritation, 5; hot baths, 5; hot flannels, 3; warm fomentations, 1; poultices, 11; cupping, 2; dusting the limb with sulphur, 2; plasters, 3; opposed to local measures, 1.

It is difficult, so says the editor, to tabulate the answers regarding diet and regimen, but his figures are as follows: Full diet, 18; simple diet, 17; stimulants, 15; opposed to stimulants, 14; a varied diet, 12; non-nitrogenous diet, 5; fatty food, 2; opposed to sour matters, 1. The American line of treatment inclines more to a generous diet with wine than does the European plan.

Omitting the answers to questions as to how far the treatment is modified by the constitution of the patient, and by age and sex, as to the methods of overcoming constipation and regarding the complication of syphilis, the answers to the treatment of paralysis after the pain is gone are full and instructive: 13 speak of galvanism, 10 of faradization, and 9 of electricity; of these 17 are in favor of the constant current, while 1 prefers the interrupted current. The next most general treatment is friction, 12; shampooing, 6; the douche, 4; and massage, 2. Rest is mentioned as necessary by 7. The result of the use of strychnine is mentioned by 8, while iodide of potassium is used by 1. Stimulating liniments are in favor with 3, and baths with 5, while flannel has one advocate; no less than four say they have never seen any subsequent paralysis, and one says he knows very little about it.

In answer to the query "Is electricity useful?" 23 reply "Yes," and 4 "No." Of the others, 8 have never tried it, 4 say they know little about it, 1 says he cannot say, and 1 is opposed to it. In 2 answers it is stated that its use should be confined to the later stages of the case.

Cod-liver oil is apparently in great favor, being in use with no less than 40, many of whom speak highly of it. A number, however, state that they only resort to it in strumous cases. Of the others, 8 say they rarely prescribe it, and 1 never tried it.

Birmingham, England, is to have an aquarium which will cost $200,000.

RECENT PAPERS.

Liebig's Annalen der Chemie. 185, 1.

J. STENHOUSE and C. E. GROVES. "On Picrorocellin." [The authors had received from a manufacturer of orseille a quantity of algæ, which differed from the usual species of Rocella, and possessed an intensely bitter taste. They were purchased from a Portuguese house, and were probably obtained from Western Africa. On analysis, the authors found in it a crystalline principle, picrorocellin, $C_{20}H_{29}N_3O_5$, which is the *first nitrogenous crystalline substance discovered in algæ*.

The medical properties of this bitter body, which is supposed to have anti-febrile properties, have only been partially investigated by Dr. T. Lauder Brunton, who found as chief characteristic that picrorocellin differed from quinia in *not* arresting oxidation. This was proved by Binz's method: If an ethereal solution of picrorocellin is mixed first with an alkaline solution of indigo-sulphate, then with blood and ozonized oil of turpentine, the formation of isatin * is not arrested, while quinia retards it very considerably.]

A. G. EKSTRAND: "On Reten." [When tar is subjected to distillation, for the preparation of oil of tar, a viscid oil is left behind, which on cooling congeals to a granular mass, the so-called tar-tallow. Purified by soda and sulphuric acid it has nearly the same color and consistency as beef-tallow. This substance, which is used for making axle-grease, consists almost entirely of pure *reten*, $C_{18}H_{18}$, melting point 98.5° C.]

Neues Repertorium der Pharmacie. 11, 12.

KARL HEINTZ: "On the Effects of Muriate of Narceïna." [From this elaborate paper we quote the final results of the author: 1. Muriate of narceïne, when administered subcutaneously, acts about in the same dose as morphia, although not always as promptly. This activity probably depends much on the purity of the alkaloid, and on the proper preparation of the hypodermic solution. 2. Narceïne has some advantages over morphia, as it does not leave any disagreeable after-effects; but its narcotic effect lasts much longer, which is likewise an advantage. The salt is very little soluble in water, and for purposes of hypodermic injection a solution is best made as follows: 0.3 gm. of muriate of narceïne are mixed with 20 gm. of distilled water in a flask or test-tube; the latter is placed into a water-bath and heated until the salt is dissolved. If on cooling any of the salt should separate at a temperature exceeding 40° C., hydrochloric acid must be added to the solution, but not more than sufficient to produce a clear solution. On cooling, the mixture looks like curdled milk, and requires to be warmed before being used.]

MAX STUMPF: "Researches on the Effects of Jaborandi." [The author's results are about the same as those obtained by Dr. Ad. Weber, which will be found in our January number, p. 13; but he differs from him in stating that jaborandi *lowers* the temperature of the body, and that it frequently causes *vomiting* (10 times in 27 cases).]

We learn with regret that the publication of this valuable journal closes with the present number, which concludes the 25th volume.

Pharmaceutical Journal and Transactions. 343–347.

EDW. HIRSCHSOHN: "Comparative Examination of the more important commercial Varieties of Galbanum and Ammoniacum Gums. II. Ammoniacum." (See next number.)

BENTLEY: "The Admixture of White Hellebore with Valerian Root." [An English pharmacist had purchased some valerian root, part of which was used in form of infusion. This caused intense sickness in all who took it; the druggist sent a sample of the root to Prof. Bentley, who at once recognized the presence of a large quantity of the root of a species of Veratrum. The sale of this dangerous drug was stopped, and an examination of the remaining parcel

* A product of the oxidation of indigo; indigo: C_8H_5NO; isatin: $C_8H_5NO_2$.

proved it to contain 34 ounces of true valerian root and 8 ounces of white hellebore rhizoma.]

H. LENIER: "The Coloring Matter of the Petals of Rosa Gallica." [The author has examined the coloring matter of rose-petals, and finds it to be capable of forming crystalline compounds with alkalies.]

W. A. SHENSTONE: "Note on the Action of dilute Nitric Acid on Brucia." [The author confirms Mr. Cownley's results (see NEW REM., v., 174) as to the *non-conversion* of brucia into strychnia by means of nitric acid, which had been maintained by Sonnenschein.]

B. H. PAUL: "The Pharmacopœia Test of Quinia Sulphate." (See next number.)

B. H. PAUL: "Presence of Cinchonidia in the Quinia Sulphate of Commerce." (See next number.)

American Journal of Pharmacy.

February. JOHN M. MAISCH: "The Metrical System in Prescriptions." [Pointing out the errors committed by several late writers on this subject, showing among others that wherever the system is in use, for medical or pharmaceutical purposes, *weights* alone are used to the entire exclusion of *measures*. The paper contains some other important arguments in favor of the metric system, which we would call attention to.]

H. G. DEBRUNNER: "Wash-Blue and its Analysis." [The various pigments sold under this name consist of Prussian blue, or of starch impregnated with indigo or aniline-blue, although the latter are not very common. The mode of manufacture of the ordinary blue is to add to a solution of ferrous sulphate a solution of potassium ferrocyanide, and to treat the resulting white precipitate with a mixture of nitric and sulphuric acids.]

Pharmaceutische Centralhalle. No. 1–4.

HAGER: "Precaution in working with Hydrogen." [In the laboratory of a Berlin druggist some apprentices were engaged in filling bubbles with hydrogen. The somewhat large generator had not yet been sufficiently freed from air, before the gas was lighted. The consequence was a tremendous explosion, doing great damage to the laboratory and severely injuring one of the workmen.]

HAGER: "Cyclamin or Arthanatin." (See p. 70.)

HAGER: "Distinction between Benzine obtained from Coal, and Benzine from Petroleum." [The author reiterates the correctness of Push's observation on the behavior of iodine towards these two species of benzine. Iodine is soluble in coal-tar benzine and in American petroleum with *violet-red* color, and in petroleum-benzine with *raspberry* color; the violet-red tint in the case of the American petroleum is however preceded by a short appearance of raspberry color.]

Berichte der Deutschen Chem. Gesellschaft. No. 19.

C. LIEBERMANN and O. BURG: "On Brasilin." [The authors have examined the chemical relationship of *brasilin*, the coloring matter of the heart-wood of some species of Cæsalpinia, with *hæmatoxylin*, the coloring matter of Hæmatoxylon Campechianum. They found that brasilin has the composition $C_{16}H_{14}O_5$, differing from hæmatoxylin ($C_{16}H_{14}O_6$) only by one atom of oxygen. This close analogy makes it probable that one and the same body may form the basis of both substances.]

C. BULK: "A simple Separatory Funnel." (See next number.)

C. BULK: "A simple Suction and Pressure Pump." (See next number.)

AD. CLAUS: "Preparation of Pure Ricinoleic Acid." [This may be prepared by fractional precipitation of crude castor-oil soap (in solution) with calcium chloride. Solution of the last-named salt is added to a clear solution of the soap, until one-third of the fatty acids have been precipitated. The remaining portion of the solution is then precipitated separately and yields pure calcium ricinoleate, which is crystallized once or twice from alcohol, and from which the pure acid may be obtained by decomposition with dilute sulphuric acid.]

Journal de Pharmacie et de Chimie.

LEPAGE: "Sodium Santonate." (See next number.)

De Farmaceut. No. 16.

W. STOEDER: "On Calcium Phosphate." [The author has investigated the processes and their resulting products, for preparing precipitated calcium phosphate, as prescribed in the French, English, Dutch, German, Austrian, and Swiss pharmacopœias. He finds that the resulting product has a composition different from that heretofore accepted. The reputed formula of precipitated calcium phosphate is $Ca_3 2PO_4$, obtained by the following reaction:

$$CaH_4 2PO_4 + 2CaCl_2 + 4NH_4HO = Ca_3 2PO_4 + 4NH_4Cl + 4H_2O.$$

But the quantity of ammonia used for precipitation is, according to the author, generally deficient—about one-half, whence the reaction would proceed as follows:

$$CaH_4 2PO_4 + 2CaCl_2 + 2NH_4HO + 2H_2O = 2(CaHPO_4, 2H_2O) + 2NH_4Cl + CaCl_2,$$

and the resulting product, $CaHPO_4, 2H_2O$, would therefore be an acid salt.]

The Pharmacist.

February. R. ROTHER: "Some Officinal and Non-officinal Alcoholic Solutions." [The author criticises several officinal formulæ, among them *Spiritus Aetheris Compositus*, in which he pronounces the addition of ethereal oil as useless and recommends a mixture, resembling in ether strength that of the German Pharmacopœia, namely, of ether 1, water 1, and strong alcohol 2 measures. —— *Spiritus Chloroformi*. The author points out that the quantity of alcohol was raised in the last revision from 6 to 12 fl. oz., and as no mention of the change is made in the tables, he surmises that the "6" should have remained. He proposes to change the formula to either: chloroform 2, water 2, strong alcohol 5 volumes, or: chloroform 1, water 2, strong alcohol 5 volumes; the former would contain 2 vol. of chloroform in 9 of solution (2 : 9), the latter 1 vol. of chloroform in 8 of solution (1 : 8). —— *Spiritus Camphoræ*. The author proposes to reduce the strength of the alcohol by dissolving 16 troy ounces of camphor in stronger alcohol to 7 pints, and then adding 1 pint of water under constant agitation.]

Journal of the Chemical Society.

January. M. M. PATTISON MUIR: "On certain Bismuth Compounds." [The author has continued his researches on the compounds of bismuth—see NEW REMEDIES, v., 145—and has established the composition of several new ones, to one of which he assigns the formula $Bi_{11}Br_7O_{13}$ or bismuthyl oxybromide; to another the formula $2BiBr_3 5NH_3$, an ammonio-bromide of bismuth.]

E. JACQUEMIN: "Rhodeïne, a new Test for Aniline" (from *Comptes Rend.*). [The sensitiveness of the well-known reaction of aniline with hypochlorites is such that 1 part in 10,000 may be detected. With a greater dilution hypochlorites give only a very slight brown tint, if they produce any visible effects at all. But the author has found that the further addition to the brown or colorless solution of a few drops of a very dilute solution of ammonium sulphide (1 drop in 30 c.c. of water) develops a magnificent rose color, by which so small a proportion as 1 part of aniline in 250,000 may be recognized. This new color, which is very fugitive and disappears immediately if an excess of sulphide be added, the author proposes to designate as *rhodeïne*. He did not obtain similar results with oxidizing or reducing agents other than those above named, nor did toluidine, etc., produce any such effects.]

Droguisten-Zeitung.

X. LANDERER: "On Trachana." [An excellent article of food, bearing this name in the Orient, is prepared by boiling one part of best coarsely ground wheat with two parts of fresh goat's or sheep's milk, rapidly evaporating to a thick consistence, and drying the residue. This is called "*sweet trachana*." Should the mass, as it sometimes happens, turn sour, it is not rejected, but still used under the name of "*sour trachana*." Many families prepare it in quantities and keep it for winter use: boiled with milk or bouillon it forms an exceedingly palatable and nourishing food.]

Répertoire de Pharmacie. No. 2, 3.

FORMULÆ and Preparation of certain new Remedies.

The Practitioner.

February. W. H. BROADBENT: "Warburg's Tincture." [In a somewhat rambling paper on the therapeutic effects of Warburg's tincture, the writer quotes two cases in which it was of great service. He believes that the occasion for the use of this medicine is found "in conditions in which there is no organic disease necessarily fatal, and no local inflammation adequate to the production of the symptoms, but the nervous system is overwhelmed by some poison, as in malignant remittants, or oppressed by pyrexia, or sinking under some depressing influence."]

THOMAS BUZZARD: "Sciatica." [Advises resort to moderate doses ($\frac{1}{30}$ to $\frac{1}{8}$ of a grain) of morphia hypodermically, flying blisters, and galvanism. Induction currents are more serviceable in muscular rheumatism, but aggravate neuralgia. In the latter the constant voltaic current is best.

F. LAUDER BRUNTON: "The Return on Sciatica." [See page 82.]

ARTHUR GAMGEE: "On the Curative Effects of Mild and Continued Counter-irritation of the Back in cases of General Nervous Debility and in certain Cases of Spinal Irritation." [See page 80.]

The Ohio Medical Recorder.

February. J. F. BALDWIN: "The Metric System in Prescriptions—The Other Side." [While admitting the simplicity and convenience of the method in many respects, the necessity for the remembrance, by the prescriber, of the variations in specific gravities of fluids in common use is cited as the main objection to the employment of the method; while, to avoid inexactness, the need for learning the doses and proportions of his remedies anew, is mentioned as another of the faults of the proposed change.]

British Medical Journal.

January 20.—DAVID FOULIS: "Treatment of Ringworm by Leaves of Cassia alata." [States that none of the remedies tried by him, for the cure of ringworm, during a residence several years ago in India, were as efficacious as the one resorted to by the natives, viz., rubbing the diseased part with the fresh leaves of "daod patta" or *Cassia alata;* the expressed juice being left to dry on the skin, which was stained a light brown color. The itching was immediately relieved, and in a day or two the skin assumed a healthy appearance. It has been stated that these leaves contain chrysophanic acid.]

HERBERT L. SNOW: "Podophyllin in Acute Rheumatism." [Three or four powders, each containing $\frac{1}{4}$ to $\frac{1}{2}$ grain, to be administered at intervals of 3 hours on alternate days, to be taken dry, with powdered sugar. Muriated tincture of iron or nitro-muriatic acid on alternate days. Acute cases, as a rule, recover in a week.]

January 27.—W. LEMON LANE: "Some Experiments with Nitrite of Amyl." [Experiments with kittens showed a number of facts, among which the most practical was the effect of the agent, when *inhaled in small quantities,* in producing recovery from chloroform narcosis and in producing a rise of temperature.]

EDWIN FAIRLAND: "Malignant Cholera. Treated by Nitrite of Amyl and Hydrate of Chloral." [The former given for fifty-six hours by inhalation and per os. Hydrate of chloral to the extent of 64 grains in 2-grain doses.]

VICTOR JAGIELSKY: "Treatment of 'Chronic Diarrhœa' by Koumiss." [The writer has been active in introducing this remedy into use in England, where it has proved valuable in affections attended by impaired nutrition, or exhaustion from disease.]

BALMANNO SQUIRE: "Treatment of Ringworm by Chrysophanic Acid." [Replies to the paper of Mr. Foulis, quoted above, and remarks concerning the composition of Goa powder, that it is not quite probable that it contains leaves of Cassia alata, the present knowledge of it indicating its source to be the medulla or pith of the stem of some kind of leguminous tree.]

February 3. "Cassia alata, Ringworm Goa Powder and Chrysophanic Acid." [A number of short communications on this subject may be found on page 134 of the above journal.]

EDITORIAL: "The Milk of Sulphur Question." II.

February 10. "Treatment of Ringworm by Goa Powder and by Perchloride of Iron." [Short notes from Drs. A. Hughes Bennet and James Dobbie.]

EDITORIAL: "The Relation of Alcohol to Medicine." [Based upon remarks made at a meeting lately held by the Church of England Temperance Society, in Oxford.]

Cincinnati Lancet and Observer.

February. A. PATTON: "Specific Methods in the Treatment and Investigation of Diseases." [A valedictory paper in which the writer reviews the various "systems," and expresses the opinion that absolute certainty in the treatment of diseases will ultimately be arrived at.]

Chicago Medical Journal and Examiner.

February. A. M. ELLIS: "Atropiæ Sulphas in Myringitis and Otitis." [In the treatment pursued by the writer, local depletion plays quite as prominent a part as the employment of atropia.]

FRANK ALPERT: "The Corn Sweat." [A primitive form of vapor-bath, which was resorted to for the production of profuse perspiration. "Have the apartment warm; boil fifteen ears of corn in a kettle. Warm five blankets and place them one above another on a bed. Put the patient, undressed, on the blankets and wrap two of them around him, not both at once, but one after the other. Quickly dry the boiling ears with a towel, place them all about the patient, and wrap the remaining three blankets one by one around him. Adults and older children should be kept in the sweat three-quarters of an hour; children from three to six years, half an hour. Remove the corn and uncover gradually, retaining the last blanket until the patient is dry.]

Atlanta Medical and Surgical Journal.

January. J. W. GRIGGS: "Hypodermic Use of Tincture of Veratrum Viride in Puerperal Eclampsia." [Reports 3 cases in which 2 to 3 drops of the tincture were used with $\frac{1}{3}$ to $\frac{1}{6}$ of a grain of morphia hypodermically, with good results.]

The Medical and Surgical Reporter. Vol. xxvii., No. 5.

A. F. SHELLY: "Digestine." [Gives a vague description of a remedy made first by himself and latterly by W. R. Warner & Co., to which he gives the above name, and which is probably nothing more nor less than pepsine derived from the gizzard of the domestic fowl.]

No. 8. ALFRED B. TAYLOR: "Fluid Weights in Prescriptions." [Attempts to point out that fluid medicines may be as easily prescribed and dispensed by weight as by volumes, after a tabulation of effective and maximum doses of the entire materia medica in units of weights; secondly, that mixtures so prepared may be administered with facility by familiar measures of volume; third, that in the event of the adoption of the metric system its notation can be made exceedingly simple and convenient; and fourthly, presents the advantages which would follow the adoption of medicine spoon and glasses graduated to the measures of capacity of the French system.]

T. M. MATTHEWS: "Muriated Tincture of Iron as a Specific for Erysipelas." [Endorses the experience and writings of Dr. Bell, of Edinburgh.]

Louisville Medical Times. No. 59.

DOUGLASS MORTON: "Notes on the Therapeutic Uses of the Extract of Malt." [Reports four cases:—Intestinal tuberculosis chronic bronchitis with asthma, dyspepsia with gastralgia, and flatulence and faulty nutrition connected with dysmenorrhœa. All had failure in power of digestion and inanition as prominent symptoms, and all were much benefited by malt extract.]

ORIGINAL COMMUNICATIONS.

NOTE ON THE SOLUBILITY OF CERTAIN KINDS OF QUININE PILLS.

SOME months since I was called to see a medical gentleman who was suffering from an attack of gall-stone colic. He had had several previous attacks, in one of which I had myself seen him. Desiring to establish the diagnosis, I requested that the evacuations be examined for calculi. The following day a small object, having at first sight the appearance of a gall-stone, was handed me, with the inquiry if I thought it was such. On examination, however, it seemed to be a "compressed pill," discolored, but changed in form only slightly by the rounding off of its edges. Dissolved in acidulated water, the characteristic opalescence of a quinine solution was manifested. On the following day a second pill was found in a stool. These pills had been taken by the Doctor on Saturday, and were passed on Monday and Tuesday, and remained therefore in the alimentary canal, the one about two and the other three days, with almost no change in their form or size. Some pills of the same kind were obtained from the druggist who dispensed them, and I found that they almost immediately fell to pieces on being placed in water.

Within a few days after this occurrence, several canvassing agents for drug houses brought me specimens of their quinine pills, with the request that I should test their relative solubility.

The memoranda below are of two trials with pills of the bi-sulphate and the sulphate of quinine. I made a number of other trials, essentially the same in character, and with almost identical results.

Into a number of labelled phials were placed specimens of the various pills; the bottles were filled with water at 100° F., and kept at that temperature by means of a water-bath. The pills were all of two-grain size, and, with the exception of Warner's sugar-coated pills, were furnished by the agents of the respective manufacturing houses.

I observed in these experiments (and in a number of others, the details of which I do not take the space to note here) that the compressed pill uniformly crumbled at once, and in the case of the bi-sulphate speedily made a solution, in which the naked eye could detect no particles, although it was strongly opalescent. The slow breaking up of the gelatine-coated pill was probably due to its coat; for, once this was broken, the mass seemed to yield more rapidly than did that of the "soluble" and the "sugar-coated" pill, the coats of which were not so tough as the gelatine.

I also submitted the pills numbered 2, 3, 5, and 6 to the action of an acidulated solution of pepsin (pepsin 15 grs., ac. muriat. 5 minims, water 2 ounces), at a temperature of 100° F. and kept the vessel continually but gently agitated. In our experiment, pill No. 2, crumbled as in water but not so quickly, several minutes being required. In another it gradually dissolved and had disappeared at the end of 72 minutes. Nos. 5 and 6 gradually dissolved and were not recognizable after 30 minutes. The coat of No. 3 burst after twenty minutes and the mass gradually dissolved, the last fragments being recognizable 50 minutes after the beginning of the experiment, the delay, as before, being probably attributable to the coat and not to the quality of the pill mass.

		5 *m.*	10 *m.*
1. Soluble pill. Quin. bi-sulph. Schieffelin.	.....	Coating roughened.	Agitation dislodged surface of coating.
2. Compressed pill. Bi-sulphate. Wyeth.	In two minutes fell into a pile of débris.	Partly dissolved. Reduced to a powder.	A uniform milky deposit, which on agitation made a uniform opalescent solution.
3. Gelatine-coated. Bi-sulphate. McKesson & Robbins.	.....	Coating roughened.	Agitation no effect.

	15 *m.*	30 *m.*	45 *m.*	60 *m.*
2.	Pill not affected by pressure or agitation.	Surface yields somewhat to pressure.	.....	By occasional agitation the pill dissolved (keeping its spherical form) totally at the end of an hour.
3.	Surface blistered, but agitation has no effect.	Can be broken up somewhat on pressure. Solution perfectly clear. Five minutes later, forcible pressure broke off many flocculi, which discolored the water.	.....	The pill was finally broken up (by occasional agitation) in an hour and a half.

SULPHATE OF QUINIA.—The pills were not agitated until after the expiration of thirty minutes.

		30 *m.*	45 *m.*	60 *m.*
4. Gelatine-coated. McKesson & Robbins.	No change except roughening of the coating.	Agitation; liquid perfectly clear.	A few flocculi.	Liquid clear. Broke up completely in two hours.
5. Soluble pill. Q. S. Schieffelin.	No change except roughening of the coating.	Flocculi dislodged. Agitation every few minutes.	.....	Liquid cloudy. Broke up completely after two hours and a quarter.
6. Pil. quin. sulph. Sugar-coated. Warner.	In a minute the coating began to dissolve, and was completely dissolved in five or six minutes.	Water milky from sugar-coating.	Surface crumbling.	Surface crumbles, leaving liquid opaque. Broke up completely after an hour and a half.

But the most interesting point to the practitioner is this, that the pill which in water never fails to immediately break up was the very one that, in the case quoted, remained in the alimentary canal two and three days unchanged. Such accidents are often construed as indicating an unusually hard or tenacious or ancient pill mass. I think, however, they are quite as often due to the condition of the alimentary canal itself. A therapeutic maxim, formerly much more observed than at present, was to preface the administration of quinine by a cathartic, particularly if there was much disturbance of the digestive tract. The value of this maxim I practically learned very soon after I commenced the practice of medicine, and I presume it a common experience to find that the desired effects of quinine are sometimes obtained after a cathartic when they had been sought in vain before its administration. The case that has served as a text for these remarks would seem to suggest that often in the "bilious" remittents and kindred disorders the remedy may be absolutely unabsorbed, no matter how freely administered by the stomach. If the urgency of the case does not permit the delay necessary to the prefatory treatment, the hypodermic method would seem to be the natural indication.

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CHRYSOPHANIC ACID OINTMENT.

THE uses and properties of goa powder, or araroba, have been repeatedly discussed in the pharmaceutical and medical journals of the past year, and we may therefore content ourselves with referring to pages 105, 135, and 356 of our last volume. Mr. Balmanno Squire, Surgeon to the British Hospital for Diseases of the Skin, has employed this remedy as an application in various cutaneous affections, and has come to the conclusion that chrysophanic acid, which is the chief ingredient, is also the active agent of the substance. The favorite mode of applying it in the tropics seems to be, to wet the powder with water, or with vinegar or lemon-juice, and to smear the thin paste thus produced on the affected skin. But this paste dries up very speedily into its original condition of fine dry powder, which is easily rubbed off by the slightest touch. According to Mr. Squire, an ointment is unquestionably a much better form of applying the remedy. This form seems occasionally to have been had recourse to; but wetting the powder and smearing on the paste is obviously the orthodox custom. As an ointment should be perfectly smooth and uniform, especial care was taken to obtain this end, and for this purpose advantage was taken of the solubility of chrysophanic acid in hot benzole, which is also capable of dissolving lard. Two drachms of chrysophanic acid and an ounce of lard were dissolved in the smallest necessary quantity of boiling benzole, applying heat by a water-bath. Then as the brown solution cooled (the vessel containing it being placed in cold water), and the chrysophanic acid, much less soluble in cold than in hot benzole (*Attfield*), became rapidly deposited, the mixture was briskly stirred in an evaporating basin. As the mixture speedily became "set," a most perfect ointment was produced in a very ready manner. After leaving the ointment spread about the dish for a short time, the benzole almost completely evaporated from it, leaving it quite hard, and giving it the appearance of being stained, or some sort of soft yellowish wax. The smell of benzole adheres to the ointment for some time, but finally is lost or may be concealed by some essential oil.

Mr. Squire finds that the properties of chrysophanic acid are by no means confined to its being a remedy for ringworm, but that it is likely to prove a valuable addition to the list of drugs as a remedy for other non-parasitic skin diseases. He has obtained unquestionably good results with it in the treatment of psoriasis, and it is a serviceable application in cases of lupus. He adds that particular care must be taken in the preparation of the ointment if it is to turn out such as described above. In the first place, the acid must be thoroughly dissolved in the hot benzole, and in the next place, the cooling and evaporation of the benzole must be conducted as rapidly as possible. With this view the process of dissolving may be conducted in a small glass beaker placed in a water-bath, and when solution of the acid and the lard has been perfectly accomplished, the solution should be promptly turned out into a cold evaporating dish, placed in cold water, and immediately briskly stirred with a glass rod until the solution has become fully and firmly "set."—(*Pharm. Journ. and Trans.*, Dec. 16, 1876.)

In a subsequent number of the same journal, we find a communication by Dr. H. R. Crocker, who states that he used chrysophanic acid ointment some nine months previously in the treatment of ringworm. The acid was prepared by Mr. A. W. Gerrard, and was employed in the form of a concentrated solution in benzole, which retains about ten grains to the fluid ounce when cold, as well as in the form of ointment, made with ten to forty grains of the acid to the ounce of lard. The results of his experiments, which were limited to parasitic diseases, led him to consider chrysophanic acid as by no means deserving of unqualified praise. Mr. Gerrard, in the same paper, adds the statement that vaseline is a much better solvent of the acid than ordinary fats, and that the use of benzole in the preparation of the ointment is not at all necessary. Hot fats or oils, indeed, appear to dissolve chrysophanic acid in almost all proportions, but, on cooling, a good deal of it separates again, and it is necessary to rub it assiduously during the cooling, in order to obtain a smooth mass. The same experience was made by Mr. A. W. Postans, who recommends the addition of a few drops of otto of roses to disguise the peculiar odor, and who furthermore states that Dr. Ashburton Thompson has pushed the matter even further, by administering goa powder and chrysophanic acid to his patients internally as well as externally.*

The botanical source of goa powder is expected, according to Mr. Postans, to be determined by means of a specimen-plant growing at present in the Royal Botanic Gardens, Edinburgh, and supposed to be the source of the drug. See *Pharm. Journ. and Trans.*, Dec. 23, 30, 1876, Jan. 6, 1877.

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PROCEEDINGS OF THE AMERICAN PHARMACEUTICAL ASSOCIATION at the Twenty-fourth Annual Meeting, held in Philadelphia, Pa., September, 1876. Also the Constitution, By-laws, and Roll of Members. Published by the Association. 8vo, pp. 909.

No publication of the Association has done it such credit as this one. From cover to cover it is filled with the results of work which shows that American Pharmacy need take no second rank as compared with the profession in other countries.

The report of C. Lewis Diehl, on the Progress of Pharmacy, alone occupies over 240 pages, and that of the Committee on the Centennial Exhibition more than 120. There are thirty-four special and volunteer reports, occupying, in the aggregate, 128 pages, and the balance of the reports, minutes, etc., are correspondingly comprehensive. We give our readers some of these papers with the present number, and shall have occasion to refer again to the matter of the volume.

The volume is embellished with a steel portrait of the late John Milhau. If the cost of the Transactions, which since 1851 has steadily increased from 25 cents to $7,00, continues to augment in the same ratio, we shall soon expect to purchase, each year, a whole library.

THE TONIC TREATMENT OF SYPHILIS. By E. L. KEYES, A.M., M.D. New York: D. Appleton & Co. 1877. 8vo, pp. 83.

THIS is a development of the article by Dr. Keyes which appeared in the *Amer. Journal of Medical Sciences*, upon the influence of small doses of mercury in increasing the blood corpuscles, and embraces three chapters, as follows: I. On the General Treatment of Syphilis, in which the tonic effect of mercury, when given in small doses, is discussed. II. Details of General Treatment, in which the use of mercury in various ways, iodine, tonics, Zittman's decoction, syphilization, hot springs of Arkansas, and other means used in general treatment, are embraced. III. The Local Treatment of Syphilis and the Especial Means adapted to Special Lesions.

The book is very interesting, and without doubt will, from the nature of the views expressed, attract a great deal of attention. The opportunities which the author has had in the Venereal Service of the Charity Hospital, has afforded him an abundance of material whereby to establish the truth of what he teaches, and whoever has read Dr. Keyes' writings knows sufficiently well that he has the faculty of saying clearly what he means.

THE PRACTITIONER'S HANDBOOK OF TREATMENT: Or, The Principles of Therapeutics, by J. MILNER FOTHERGILL, M.D., etc. Philadelphia: Henry C. Lea. 1877. 8vo, pp. 569.

THIS appears to be decidedly one of the most valuable books of the season. Without attempting in any way to make it

* Dr. H. G. Piffard, of New York, has used goa powder as well as chrysophanic acid for some time past, several months previous to the publication of Mr. Squire's paper. We shall give some of our experiences in the preparation of the acid in one of our next issues.—ED. N. R.

a treatise on the practice of physic, the whole effort of the author has been to elucidate the mode of action of therapeutical measures and agents. The physiology and pathology of the several conditions are entered into only so far as is essential to an intelligent use of the remedies for them, and the discussion of the actions of the various remedies is based more upon their effects when used in disease, than as shown in the physiological laboratory. We feel that the superficial survey which we have made of it does not fit us to do the book the justice it deserves, or point out the faults that may exist, and we defer until another occasion any detailed criticism.

A Text-Book in Physiology. By M. Foster, M.A., M.D., F.R.S., Prælector of Physiology and Fellow of Trinity College, Cambridge. London: Macmillan & Co., 1877. 8vo, pp. 559.

This is in many ways a marked departure from the usual run of text-books upon this subject. Of late the tendency has been towards elaboration, and the degree to which this is carried seems to correspond to the number of editions through which a book has gone. Dr. Foster, however, declares that he has "made no attempt to give a comprehensive account of all the statements, conflicting or accordant," which, we may add, are often much more likely to confuse the student than facilitate his acquiring a knowledge of the subject. He says: "I have rather striven to explain, in as clear and straightforward a manner as I could, the main facts and fundamental principles of physiological science. The student before whom things both new and old are tumbled out of the physiological treasury, without adequate critical appreciation of their respective values, is simply bewildered instead of being taught; and, finding that the labors of the Physiological Laboratory at Hirsauf seem to be chiefly directed to contradicting the results of the Laboratory at Hirsab, very naturally concludes that he had better pay attention to neither.

The author adopts the presumption that the student has already made himself somewhat familiar with anatomy and chemistry, though for the sake of convenience an appendix contains the characters and reactions of the chief chemical substances.

He gives neither figures nor elaborate descriptions of physiological instruments and apparatus. "These," he says, "must be seen, not read about."

Many of the features mentioned above render the book quite as serviceable to the general practitioner, for whom nice distinctions are not likely to be of much practical value. The divisions which the author makes and the order of arrangement, also differ from most other treatises or text-books on the same subject, and from first to last show evidences that the writer is independent in his ways of thinking, and has followed no model in the construction of his book. A feature which we are always pleased to see in works for the use of students is the large number of references to detailed writings, which enable such as desire to do so, to enlarge the circle of their information with less labor than such an attempt usually involves.

The general appearance of the book is such as we always expect to see in the publications of this house. Good paper, large and clear-faced type, careful reading and handsome binding, contribute to make it attractive.

Principles of Human Physiology. By William B. Carpenter, M.D., F.R.S., F.L.S., etc. Edited by Henry Power, M.B., F.R.C.S. A New American, from the Eighth Revised and Enlarged English Edition, with Notes and Additions by Francis G. Smith, M.D., etc. Philadelphia: Henry C. Lea. 1876. 8vo, pp. 1083.

This has always and deservedly been a favorite work. Although rather voluminous for the student, it has nevertheless been so clearly written, comprehensively arranged, and thoroughly revised, that in spite of the number of good works on this branch which have appeared since it has gained its reputation, this one of Dr. Carpenter's is still an authority. In editing this eighth edition Dr. Power's labors have not been light. In the sections relating to the blood and its vessels, the liver, kidneys, and nervous system, the recent observations have been clearly described, and a number of illustrations have necessarily been added. For example: "The observations of Brozeit and Steinberg on the quantity of the blood; of Gamgee, on its specific gravity; of Jacobsen, Bernhardt, Albert, Stricker, Körner, and Heidenhain, on its temperature; of Paquelin and Joly, on its coloring matters; of Mathieu and D'Urbain, and of Estor and St. Pierre, on its gases; of Richardson and Brücke, on the structure of the red corpuscles; of Malassez, on their number; and of Foster and Balfour, on the mode of their development; of Klein, on the structure and movements of the white corpuscles; of Binz and Geltowsky, on the action of reagents on them; and of Hoppe-Seyler, on their composition; of Obermeier, Lewis, Nepreau, Lostorfer, and others on spores, germs, and entozoa in the blood, have been given under their appropriate headings."

The list of those who have recorded observations in other departments is proportionately as great.

The amount of space devoted to comparative physiology is still considerable, and in some places the tendency to enter into the discussion of vital actions which lay within the limits of pathology is likewise apparent. However, for the student who desires to gain a comprehensive knowledge of the subject, a text-book of this sort is never too complete. It was the first one we studied, and even now there are few which equal it.

American Veterinary Review. Published by the United States Veterinary Medical Association. A. Liautard, V.S., M.D., Editor. A. Lockhart, M.R.C.V.S.L., Assistant Editor.

The first number of this journal appeared in January, and contains the following interesting papers: "History and Progress of Veterinary Medicine in the United States," by Professor Liautard; "Zymotic Diseases," by Professor James Law; "Use of Stimulants in Diseases," by A. A. Holcombe, M.D.V.S.; "On Chronic Lameness of Horses' Feet," by Tho. Very, V.S.; "A Case of Erysipelatous Cellulitis," by E. T. Thayer, M.D., V.S.; and "Contagious Diseases in Cattle: The Measures Necessary for Preventing their Introduction into the United States and Canada," by Prof. J. McEachran.

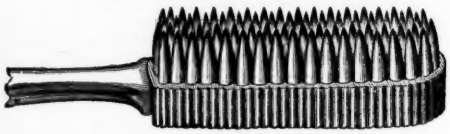
PHARMACEUTICAL SUNDRIES AND NEW INSTRUMENTS.

Doctor Holden's Resonator.

In a recent number of the *Medical Record* Dr. Edgar Holden, of New Jersey, described a new aid in physical diagnosis, which he terms a "*resonator*." The instrument consists of a soft rubber tube with end pieces. The tube is one-sixteenth of an inch in thickness; internal diameter one-half inch; length seventeen and three-quarters inches. Distal end-piece of thin brass, three-quarters of an inch in internal diameter, one-fortieth of an inch in thickness, and one and a half inches long. Proximal end-piece (mouth-piece) of wood or metal. Same external diameter, and same internal *at its extremities*, but narrowed in its middle to five-sixteenths of an inch, and one and seven-eighths inches long. The mouth-piece of a trumpet would doubtless be better." A rushing noise is produced at the extremity of the tube when one makes forced inspiration or expiration through it. "If the patient be made to respire through the tube, the ear of the physician being applied to the chest, and particularly in the supra-scapular space, this rushing sound is transmitted with clear, resonant volume. Disease, however slight, exaggerates the sound, alters the pitch, or changes it in proportion to the solidity of the conducting tissues." It is recommended to hold the free end away

from the examiner so as to avoid distracting the attention, and to close the free ear with the hand. "A singularly magnified character is given to the respiratory murmurs, and the stethoscope is unnecessary. It intensifies the sounds of vesicular dilatation, whether in a normal or morbid state. It intensifies the tubular sounds which, to the unassisted ear, are sometimes partially drowned by the neighboring healthy murmurs, and it exaggerates to painful hoarseness the evidences of air in cavities."

"Marvelous" Tooth-Brush.



This peculiar tooth-brush (for the sale of which Mr. Theo. Ricksecker is agent) is composed of a number of soft rubber cones attached by thin vases to an india-rubber body, and having incorporated with the material some sort of dentifrice, which renders the use of tooth-powder unnecessary. Another advantage is the freedom from loose bristles, and the risk of the latter becoming wedged between the teeth. We would suppose that this brush would be just the thing for Mohammedan countries, where the religious prejudices of the people lead the dealers to swear that brushes made of pigs' bristles in England have been manufactured under their immediate supervision from the hair of the camel. But the correspondent of an English Trade Journal says that the moslem dealers could not be induced to forego such a chance for telling a square lie in the course of a trade.

French's Spongoid Capsicum Drafts.

SAID by the proprietor, John M. French, to be superior to mustard leaves or plasters because they never blister, have no stickiness, and leave no discoloration of the skin. They are also said to be capable of being reapplied several times.

The capsicum is incorporated with a spongy material like paper, and are used by first moistening with water, and fastening into the part when counter-irritation is desirable.

Theod. Ricksecker, of 146–148 William Street, is the sole wholesale agent.

"Combination Lock" Bottle.

THIS is just the thing for dwellers in hotels and boarding-houses, where cologne and liquors appear to be considered by servants to be public property. L. M. Ballard, the patentee, of 14 Warren Street (P. O. Box 2115), will send one of them, securely packed, anywhere within 1,500 miles of New York, charges paid, on the receipt of $2.50. The lock consists of three rings, one above the other, with letters of the alphabet on the outer edges. When the rings are rotated so that notches on their inner edges come opposite a proper point on the neck of the bottle, the silver-plated cap can be taken off, and the glass stopper is uncovered and removable. A person who does not know the letter-combination might spend hours in fruitless efforts to open it.

Antiseptic Dressings.

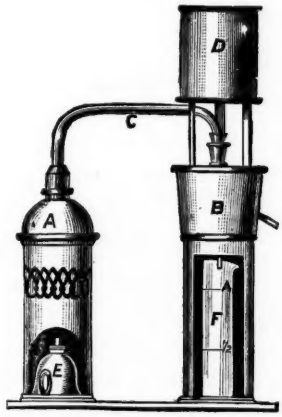
MR. CHARLES AM ENDE, 268 Washington St., Hoboken, N. J., sent us, some time since for trial, samples of cotton charged with antiseptic and astringent materials, which we have tried in practice and find to be very satisfactory.

Two samples contained boracic acid only; one having been charged with a 15 per cent. and the other with a 50 per cent solution. A third contained 50 per cent. of boracic acid with 20 per cent. of alum. The latter we have made the most use of; employing it as a tampon in the treatment of catarrhal affections of the uterus and vagina, after first wetting it with glycerine. The well-known offensive odor of the tampon was by no means so strongly marked after its removal, and its value as a therapeutic agent was quite decided. The varieties of cotton first mentioned are calculated for the antiseptic dressing of injuries and open wounds.

Another form of dressing is an antiseptic gauze for surgeon's use. This we have yet had no opportunity to try practically, but its general appearance, as compared with similar materials, is very good. All show evidences of having been prepared with care.

Weinhagen's "Monitor" Still.

MR. H. WEINHAGEN, of 152 William St., has made a miniature still for determining the percentage of alcohol contained in cider, wine, beer, vinegar, etc., the construc-



tion of which is explained by the above engraving. A is a boiler, B the cooler with worm, C the connecting pipe, D the reservoir for cold water, E the alcohol lamp, and F the glass for receiving and measuring the distillate. All the principal parts are of copper lined with tin. A small wineglassful of the fluid to be examined is sufficient, and it requires only ten or fifteen minutes to distill enough for testing. Mr. Weinhagen also makes an apparatus of somewhat larger size, which will prove serviceable to the retail druggist in recovering alcohol in pharmaceutical operations. The cost of the one here described is $10.

Johnson's New Combination Pen and Pencil Case.

THE above cut represents a very neat combination of the three articles—knife, pen, and pencil. The sample sent to us is well made, plated with nickel, and, considering its convenience and workmanship, is very cheap.

Twenty-five cents sent to 596 Broadway will secure a sample by mail, and the dozen or gross can be had for $1.75 and $19.00 Gold-plated ones can also be had for $1.00 and larger quantities in proportion.

Protagon.

MR. ALBERT C. DUNG, 61 Bowery, New York, informs us that he has on hand protagon, from the brain of the cow, recommended by Charles G. Polk, M.D. (NEW REMEDIES, Nov., 1876, page 344), and will be happy to fill orders. For cost see Prices Current.

THIS is a new thing to tempt the one who has a liking for novelties, and consists of a knife, the handle of which is made to terminate in a sort of cutting nipper for the purpose of trimming the finger-nails. The handle itself is of white metal, while the cutting edges are of steel. Its novelty appears to us to be its greatest recommendation, but we may be old-fogyish in our preference for a simple knife-blade. Any one who may like to see a sample can obtain it by addressing W. C. Edge, 5 Maiden Lane, New York, and enclosing 50 cents.

Tiemann & Co.'s New Thermometer.

GEO. TIEMANN & CO., 67 Chatham St., New York, inventors and manufacturers of the thermometer represented above, claim for it:

1. The registering portion or index cannot be united with the main column of mercury in the bulb except by design. The device of the "bend" fulfils the object of guarding against accidental loss of index.

2. The scale is graduated in $\frac{1}{4}°$, and is identical in every respect with that of a *four*-inch thermometer, whereas the best thermometer is less than $3\frac{1}{2}$ inches in length.

3. The portion of the thermometer intervening between the bulb and the commencement of the scale lies in juxtaposition to the bulb, and the ascending mercury is therefore subjected to the warmth of the parts as well as the bulb, and is not exposed to external temperature.

4. It will not roll. The advantage of this latter feature will be readily recognized and appreciated.

The thermometers are safely carried in a neat morocco case (lancet case style), lined with velvet, and can be conveniently placed in the vest pocket, being but $3\frac{1}{2}$ inches in length, and but $\frac{1}{4}$ inch wide; price $3.50.

NOTES, QUERIES AND ANSWERS.

[Under this heading we shall, to the best of our ability, endeavor to answer such questions addressed to us as come within the scope of this journal, provided they are accompanied by the name and address of the writer. Answers to queries received after the 5th of the month will lie over until the next issue.]

Gokhru or Gocrow (F. R. S., New York).—This is a contracted form for Gokeroo, the Hindustani term for *Pedalium Murex* L., also called Ghanti-gura, a plant belonging to the Sesam family, and growing in many parts of the Madras Presidency, especially near the sea. The fresh leaves and stems, briskly agitated in cold water, speedily convert it into a thick mucilage, nearly of the consistence of the white of a raw egg, inodorous and tasteless. An infusion, thus prepared, is a highly prized remedy amongst the people of Southern India, in gonorrhœa and dysuria. Dr. Ives, Dr Waring and Dr. Thomas of the Indian service all testify to the power of this mucilage to cure gonorrhœa without any other remedy. Water, thus rendered mucilaginous, soon returns to its original fluidity, and it therefore requires to be freshly prepared each time before its exhibition. This circumstance, as well as the statement that only the *fresh* leaves and stems are suitable, will probably prevent their employment in this country, unless the plant can be cultivated. We are not aware that any has been brought to this country.

Barber's Wax (Indianapolis, Ind.)—A good formula for preparing this cosmetic is the following: Mix 1 part of best lamp-black and 8 parts of brown ochre under constant stirring with a melted mixture of 40 parts of yellow wax, 30 parts of lard, and 1 part of oil of bergamot; then pour it into moulds of about the thickness of a finger, and cover with foil. Another formula is the following: Yellow or white wax 90 parts, sweet almond oil 30 parts; melt them, and while stirring add powdered Venetian soap 100 parts, powdered gum arabic 90 parts, glycerine 10 parts, rose-water 140 parts or a sufficient quantity, oil of rose 1 part, and oil of lemons 2 parts. Pour the mass into moulds. The so-called "Hungarian Wax" is jet-black, and of about the composition of the first-mentioned formula.

Calcium Sulphocarbolate (Same).—This salt, which is also called Sulphophenate or Phenolsulphate, may be prepared as follows: Take 188 parts of pure carbolic acid, and 607 parts of sulphuric acid, 79 per cent. Melt the carbolic acid, add to it the sulphuric acid in small portions, and let it stand in a warm place till all smell of carbolic acid has disappeared. Dilute the liquid with 8 times its bulk of water, and add precipitated calcium carbonate until the liquid is saturated. Filter from the precipitated calcium sulphate, and evaporate the filtrate, which contains calcium sulphocarbolate, either to obtain crystalline crusts, or to dryness.

French Blacking (A Brooklynite).—Try the following: Best bone-black, in very fine powder, 750 parts, olive oil 500 parts; mix and heat them together; then add Prussian blue 30 parts, shellac 30 parts, muriatic acid 250 parts, and molasses 1,000 parts; after these have been thoroughly incorporated, add gum arabic 125 parts previously made into a thick mucilage with water. A liquid blacking may be made from this, by dissolving a quantity of it in beer or wine.

Coal-Tar and its Products (G. & R., Navarre, O.)—We recommend to you the following books:

Reimann, M., Aniline and its Derivatives. 8vo. N. Y. 1868.

Beckers, Anilinfärberei, 4th ed. 8vo. Berlin. 1871. 2 vols.

Bolley, Handbuch der chemischen Technologie. Vol. 5th. 8vo., Braunschw. 1870.

Wagner, Jahresbericht über die Fortschritte der chemischen Technologie. 8vo. 1868 to 1876.

Muspratt's Chemistry, new edition.

Red and Blue Ink for Stamping Purposes.

Red: Dissolve $\frac{1}{2}$ oz. of carmine in 2 oz. of strong water of ammonia, and add 1 drachm of glycerine and $\frac{1}{2}$ oz. of dextrine.

Blue: Rub 1 oz. of Prussian blue with enough water to make a perfectly smooth paste; then add 1 oz. of dextrine, incorporate it well, and finally add sufficient water to bring it to the proper consistence.

Acid Calcium Chromate (soluble). (E. E. U. Butler, Pa.)—Two calcium chromates are known: 1. $CaCrO_4$, $2H_2O$, neutral calcium chromate, is prepared by dissolving calcium carbonate in dilute chromic acid, and evaporating the solution. It forms yellow columnar crystals, which lose their water at 200° C., turn dark brick-red on heating, returning to yellow on cooling. They are soluble at 14° C. in 241.3 parts of water, insoluble in alcohol. The anhydrous salt, which is almost insoluble, is used as a pigment. 2. $CaCr_2O_7$, $3H_2O$, acid calcium chromate, is obtained by dissolving the neutral salt just described in aque-

ous chromic acid, and evaporating the solution. It forms red deliquescent crystals. For its price, see our Prices Current.

Baking Powder (C. G. T., Chester, Pa.)—This is usually made by mixing three parts of dry sodium bicarbonate with three parts of farina, and intimately incorporating with it two parts of dry tartaric acid. The mixture must be put up and kept in air-tight cans or boxes, and must be well protected from moisture, as this would cause the acid to react upon the bicarbonate.

While we are quite willing, and ready at any time to examine medicinal substances for impurities or adulterations, provided samples are sent to us, it can manifestly not be expected of us to make analyses of commercial articles for the benefit of a few, especially if we should have to purchase the samples ourselves. *Sapienti sat!*

Elixir of Pancreatine (Capsicum, Springfield, Ill.)—Mr. R. V. Mattison has proposed the following formula: Take 6 pancreas, cut them into pieces and macerate them for three days in a mixture of water 12 pints, hydrochloric acid 4 fl. oz. and glycerine 2½ pints; then separate the liquid by straining, add 2½ fl. drachms of oil of orange, and enough glycerine to make the liquor measure 20 pints; it is then filtered, and forms a sweet acidulous liquid, one fluid drachm of which will readily emulsify half a fluid ounce of cod-liver oil. (See *Am. Journ. Pharm.*, 1873, page 533.)

Elixir of Pancreatine and Pepsine (Same).—This may be made by dissolving in each pint of elixir of pancreatine 256 grains of saccharated pepsine.

Ferrated Cod-Liver Oil (R. G., Guttenberg, Iowa).—If you do not wish to prepare this by the intervention of ferric soap, you may triturate one part of benzoate of iron (ferric benzoate) with pale cod-liver oil, until 100 parts of the latter have been added, agitating the mixture occasionally during several days, and filtering. The clear filtrate is of a yellowish-brown color, and contains nearly 1 per cent. of ferric benzoate. This latter salt must have been prepared from natural benzoic acid—made from gum benzoin—as the artificial acid which is made from horses' or cows' urine, imparts to the oil a disagreeable flavor. The above-given formula has been made officinal in the Swiss Pharmacopœia

A formula for preparing a solution of ferrous iodide in cod-liver oil will be found in this Journal, vol. v., p. 237.

Test for Sugar in the Urine (Same).—The best and readiest test is Fehling's modification of Trommer's test, commonly known as Fehling's test. The solution is prepared as follows: 90.5 grains of pure cupric sulphate are dissolved in 1¼ fl. oz. of distilled water; 364 grains of pure neutral potassium tartrate, or of pure Rochelle salts, are dissolved in 4 fl. oz. of solution of soda, spec. grav. 1.120. The copper solution is gradually poured into the alkaline solution, and the bulk of the mixture made up to 6 fl. oz. with water. If the solution is intended for quantitative use, it must be made with greater precision, directions for which will be found in our last volume (v., p. 93). In searching for sugar in urine, it is necessary first to ascertain the absence of albumen. Boil a little of the urine (which must not be alkaline) in a test-tube, heating only the upper portion of liquid; if cloudiness sets in, carefully add one or two drops of nitric acid, which will fail to dissolve the cloud, if albumen is present. Should this test leave any doubt as to the presence or absence of albumen, take a fresh sample of urine, add acetic acid to strongly acid reaction, and then a few drops of solution of potassium ferrocyanide. Even traces of albumen are indicated in this manner by the formation of a white flocculent precipitate. The albumen having then been removed by boiling the original urine acidulated with a few drops of nitric acid, the clear filtrate is made faintly alkaline with soda, and is now ready for being tested. Into a 6 inch test-tube pour about 1 fl. drachm of Fehling's solution, dilute with about 6 parts of water, and heat to boiling; the test-liquid must remain *perfectly clear*, brilliant, and of a pure blue color. Should it be at all cloudy or discolored, this is owing to changes produced by long keeping, and it must be rejected. If, however, it has remained unaltered, heat it once more to boiling, remove from the flame, and pour down the inner side of the tube a small quantity, say ½ to 1 fl. drachm, of the suspected urine. *Do not shake*, but wait. After a few moments a yellowish streak will appear in the liquid, rapidly changing to *brick-red*, and coloring the whole solution orange, or brick-red, if sugar was present. Should no change be visible after five minutes, heat once more to boiling, and, if still unaltered, *add to the boiling hot liquid a trace of pure sugar of milk, or of pure glucose*, which should immediately produce a reduction to red cuprous oxide. The object of this latter proceeding, which we are in the habit of using, is to convince ourselves, that *the test-liquid would have been capable of showing sugar in the urine, if any had been present.* We have several times failed to get a reaction with this supplementary test, after having failed with urine; and on using a fresh test-liquid we discovered the urine to contain sugar.

The best works on the Examination of Urine, chemical, pathological and microscopical, are:

NEUBAUER (Dr. C.) and VOGEL (Dr. J.) Anleitung zur Qualitativen und Quantitativen Analyse des Harns. Für Mediciner, Chemiker und Pharmaceuten. 8vo. Wiesbaden, 1876. Pp. 436. Price, about $4.00 gold.

PIFFARD (Dr. H. G.) A Guide to Urinary Analysis. 8vo. N. Y., 1875. $1.25.

BIRD (Golding). Urinary Deposits; their Diagnosis, Pathological and Therapeutical Indications. 5th edition. By E. L. Birkett, M.D. Pp. 494. 12mo. London, 1857. $5.25.

Hamburg Tropfen (Dr. Kœnig's.) (Same).—This is a modification of the so-called Elixir of Life, and contains aloes, rhubarb, white agaric, saffron and zedoary or galangal. We are not able to give you the exact formula.

Rosanoff's Crystals. (P. van H.)—These are crystals found adhering to the cell-walls of the fruits of Kerria Japonica, Phaseolus (various spec.), Dolichos (var. spec.), Lablab, Apios, Rosa canina, Ricinus, and other plants. They consist of calcium oxalate, and generally occur in pairs, but three or four single ones are often found in one cell.

Sulphur Bath. (P. L. S., (Washington, D. C.)—[Asks for a receipt for making an artificial sulphur bath for hygienic purposes, which is rather ambiguous, since medicated baths are hardly essential to the preservation of health, however valuable they may be as therapeutic agents. Inferring, however, that he employs the term artificial in contradistinction to baths composed of natural waters containing sulphur, and that the word *hygienic* should have been *therapeutic*, we will say that a bath may be made by dissolving one part of sulphuret of potassium in one thousand parts of water; or, according to Dunglison, two ounces of diluted sulphuric acid and eight ounces of sulphuret of potassium may be added to a sufficient quantity of water. Tilbury Fox says that the bath has ℥ ij. to ℥ iv. to each bath. The compound sulphur bath of Startin has ℥ ij. of sulphur (præcip.), ℥ i. of hyposulphite of soda, and ʒ ss. of dilute sulphuric acid with a pint of water. (The latter is to be used, of course, as an application to a limited surface.) The official Codex of the French gives a formula for a gelatinous sulphur bath, which consists of 100 grammes of the sulphuret of potassium, and 250 grammes of broken gelatine. The latter is to be soaked in one litre of cold water for an hour, and then dissolved with heat. The sulphuret of potassium is then dissolved in the water of the bath, and the solution of gelatine added.]

Oxygen-Air Treatment. (The same.)—[The so-called oxygen-air treatment has chiefly been written on by quacks, and we are unable to give any references to the titles of *their* works.—In Volume III. of the MEDICAL RECORD, page 529, is a paper by Dr. Andrew H. Smith, of this city, "On the Preparation of Oxygen for Purposes of Inhalation," and in the following year the same writer was awarded a prize for an essay on "Oxygen Gas as a Remedy in Disease."]

PRESCRIPTIONS AND FORMULÆ.

Formulæ for Perfumes, by William Saunders.

Jockey Club.

Ext.	jasmin	5 ounces
"	orris	20 "
"	musk	7 "
"	vanilla	1½ "
Otto	rose, virgin	1½ drachms
"	santal flav.	1½ "
"	bergamot	2½ "
"	neroli super	40 minims
Benzoic acid		2 drachms

Pure spirit, sufficient to make 4 pints.

In this way, as well as in all the following extracts, before adding the last portion of the spirit, replace as much of it with water as the perfume will bear without becoming milky, which will vary from two to eight ounces or more. This addition will make the perfume softer.

New Mown Hay.

Ext.	tonka	25 ounces
"	musk	6 "
"	orris	8 "
"	vanilla	1 ounce
"	styrax	1 drachm
Otto	bergamot	1 "
"	neroli super	15 minims
"	rose, virgin	10 "
"	cloves	6 "
"	lavender (English)	10 "
"	patchouly	10 "
"	santal flav.	1 drachm
Benzoic acid		1½ "

Pure spirit, sufficient to make 4 pints.

White Rose.

Otto	rose, virgin	2 drachms
"	red cedar wood (true)	6 minims
"	patchouly	4 "
"	orange (fresh)	½ drachm
Ext.	tuberose	2 ounces
"	orris	2 "
"	jasmin	2 "
"	musk	2 "
Benzoic acid		1 drachm

Pure spirit (to which 4 ounces of rose water has been added), sufficient to make 4 pints.

Victoria.

Otto	rose, virgin	2 drachms
"	neroli super	2 "
"	bergamot	4 "
"	coriander	16 minims
"	pimento	24 "
"	lavender (English)	16 "
Ext.	jasmine	2 ounces
"	orris	16 "
,,	musk	2 "
Benzoic acid		2 drachms.

Pure spirit, sufficient to make 4 pints.

Musk.

Ext.	musk	1 pint
"	orris	6 ounces
"	vanilla	2 "
"	styrax	2 drachms.
Otto	santal flav.	1 drachm
"	bergamot	2 drachms
"	neroli super.	10 minims
"	patchouly	12 "
"	lavender (English)	15 "
"	cinnamon (true)	6 "

Pure spirit, sufficient to make 4 pints.

Patchouly.

Otto	patchouly	2 drachms
"	santal flav.	40 minims
"	rose, virgin	40 "
Ext.	musk	8 ounces
"	orris	8 "
"	vanilla	4 "
"	styrax	2 drachms

Pure spirit, sufficient to make 4 pints.

Ess. Bouquet.

Ext.	musk	4 ounces
"	tuberose	2 "
Otto	rose, virgin	1 drachm
"	bergamot	1½ "
"	neroli super	½ "
"	verbena (true)	8 minims
"	pimento	10 "
"	patchouly	3 "
"	red cedar wood (true)	½ drachm
"	lavender (English)	12 minims

Pure spirit, sufficient to make 4 pints.

Moss Rose.

Otto	rose, virgin	2 drachms
"	santal flav	2 "
Ext.	musk	12 ounces
"	vanilla	4 "
"	orris	2 "
"	jasmin	4 "
Benzoic acid		1 drachm

Pure spirit, sufficient to make 4 pints.

Tuberose.

Ext.	tuberose	24 ounces
"	musk	4 "
"	jasmin	1 "
Otto	rose, virgin	1 drachm
"	neroli super	10 minims
Benzoic acid		2 drachms

Pure spirit, sufficient to make 4 pints.

To be continued.

Chlorodyne (Dr. Ogden's).

℞	Chloroformi	f. ʒ vi.
	Tinct. Capsici	f. ʒ ss.
	Morph. hydrochlor.	gr. ix.
	Acidi hydrocyan. (Scheele)	℥ xvi.
	Ol. Menthæ pip.	gtt. ij.
	Acidi perchlor.	gr. xx.
	Theriacæ	ʒ i.

Mix. Add the chloroform last, well rubbing and shaking. (*Chicago Pharm.*)

Donovan's Solution. (Modified process.)

Arsenious acid	gr. vi.
Mercury, pure	gr. xvi.
Iodine, pure	gr. xij.
Alcohol	ʒ ss.
Distilled water	q.s.

Rub together the arsenic, mercury, iodine and alcohol until a dry mass is obtained, and having triturated 8 oz. of the water with this in successive portions, transfer the mixture to a flask, and heat till it begins to boil. When cooled and filtered, make it up to 8 fl. oz. and 6 drachms with water. (*Chicago Pharm.*)

Jacubowitz's Injection.

Potassium iodide	1 gm.
Tincture of iodine	5 "
Water	30 "

Mix. For syphilitic bubos.

Correction.—A subscriber has the goodness to call our attention to a formula for a solution of phosphorus, published on page 124 of our last volume (J. Ashburton Thompson's solution), in which the amount of phosphorus should have been $\frac{1}{21}$ of a grain instead of $\frac{1}{31}$, as stated.

NEW PATENTS AND LAWS.

[*We will furnish gratis, to subscribers, any information relating to new patents which can be obtained from the Official Gazette of the Patent Office; and for 50c. will give copies of the drawings of such as are illustrated. Electrotypes of the illustrations contained in* NEW REMEDIES *will be furnished for 50c. per square inch.*]

TRADE-MARKS REGISTERED IN U. S. PATENT OFFICE.

Certificates dated Jan. 6, 1877.

4,256. **Medical Preparation.**—E. F. Brush & Co., Paterson, N. J., and New York, N. Y. "The word-symbol 'KUMYSS' and the representation of the animal."

4,257. **Medical Compound.**—Alfred G. Catron, Chattanooga, Tenn. "The words 'THE EUREKA,' and the representation of the sun and its rays, and the words which appear within the representation of the sun and its rays."

4,260. **Medical Compound.**—John D. Park, Covington, Ky. "The words 'DR. GUYSOTT'S' and a pictorial illustration representing a standing Indian presenting a seated white man with a handful of herbs."

4,261. **Medical Compound.**—The same. "The words 'DR. WISTAR'S,' and a pictorial illustration representing a wild-cherry tree with a male figure seated at the foot thereof, and a male and a female figure standing under the branches."

4,262. **Aluminous Compounds.**—C. W. Rogers & Co., Philadelphia, Pa. "The word-symbol 'ELEPHANT.'"

4,263. **Dentifrices.**—Steele & Price, Chicago, Ill., Cincinnati, O., and St. Louis, Mo. "The word-symbol 'TOOTHENE.'"

Certificates dated Jan. 16, 1877.

4,274. **Eau-de-Cologne.**—George Jaques, Boston, Mass. "The words 'Rival of Farina' and the two crossed fencing foils."

4,278. **Medical Compound.**—R. E. Sellers & Co., Pittsburg, Pa. "The words 'BLOOD SEARCHER.'"

4,280–4,283. **Waters for Medicinal Purposes.**—The Congress and Empire Spring Co., Saratoga Springs, N. Y. (Reregistration.) "The letter 'C,' the word-symbol 'CONGRESS,' the word-symbol 'EMPIRE,' and the letter 'E.'"

Certificates dated Jan. 25, 1877.

4,288. **Cod-Liver Oil.**—Hyland and Charles Rotton, New Dorp and Brooklyn, N. Y. "The arbitrary word 'Vitalized.'"

4,301. **Medicines.**—James R. Nelson, Wells' River, Vt. "A figure representing Æsculapius standing upon a pedestal, upon the base of which is seen the word 'Æsculapius.'"

4,306. **Medical Compound.**—Joseph Roberts, Baltimore, Md. "The word 'Roberts,' and the pictorial representation of the head of an ox or a bull."

Certificates dated Jan. 30, 1877.

4,313. **Medicinal Troches.**—B. E. Hutchinson, Worcester, Mass. "The letters 'B E H's.' and the word-symbol 'Triumphant.'"

4,316. **Medicated Electric Plasters.**—Bell, Mann & Co., Chicago, Ill. "A heart-shaped figure used in conjunction with the words 'Galvano-Electric.'"

4,328. **A Medical Compound.**—Ebenezer K. Thompson, Titusville, Pa. "The word-symbol 'Barosma.'"

LABELS.

Certificates dated January 9, 1877.

941. "**Sweet Tar Drops.**"—Henry Gosling, San Francisco, Cal.

944. "**Improved Extract of Yellow Dock and Sarsaparilla.**"—John D. Park, Covington, Ky.

945. "**Balsam of Wild Cherry.**"—The same.

Certificates dated January 16, 1877.

950. "**Eau-de-Cologne of George Jaques.**"—George Jaques, Boston, Mass.

951. "**Professor Lilley's Embrocation for Rheumatism, or Lumbago,**" **etc.**—Professor Lilley, New York, N. Y.

952. "**Hop Syrup.**"—Benjamin E. Pilley, Philadelphia, Pa.

Certificates dated January 30, 1877.

962. "**Eau-de-Cologne of George Jaques.**"—George Jaques, Boston, Mass.

963. "**Peck's Cod-Liver Oil and Wild-Cherry Bark.**"—Henry F. Peck, Philadelphia, Pa.

Certificates dated February 6, 1877.

964. "**Horehound Troches.**"—Albert G. Bassett, Rochester, N. Y.

966. "**Persley B. Comb's Horse Powders.**"—Persley B. Combs, Alliance, O.

967. "**Wild-Cherry Pastilles.**"—Edwards & Hutchinson, Leesburg, Va.

968. "**Mrs. Mary J. Bingham's Sweet Tar Balsam.**"—Henry Gosling, San Francisco, Cal.

971. "**Wilbor's Pure Cod-Liver Oil and Phos. Lime.**" Alexander B. Wilbor, Boston, Mass.

PATENTS.

Patents granted January 9, 1877.

186,022. **Eyeglasses.**—John S. Spencer, New York, N. Y.

186,032. **Obtaining Coloring Matters Suitable for Dyeing and Painting.**—H. Caro, Mannheim, Germany. [A product of alizarine].

186,089. **Carbonic Acid Generators.**—A. Kayser, Buffalo, N. Y., assignor to P. P. Pratt, same place.

186,122. **Scale Beams.**—F. Fairbanks, St. Johnsbury, Vt., assignor to E. & T. Fairbanks & Co., same place.

186,187.

186,187. **Bung-Seals.**—A. Wood, Brooklyn, N. Y. The combination of a seal made of fragile material with a bung having a recess in its face, said bung being secured in position by means of nails, or equivalent fastenings, which are covered by the seal.

No. 186,208.

Patents granted January 16, 1877.

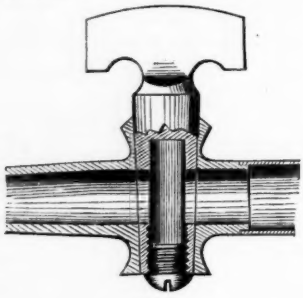
186,208. **Atomizers.**—Wm. Kennish, New Brunswick, N. J., assignor to C. B. Dickinson, Brooklyn, N. Y. The air-bulb and liquid-receptacle form one continuous chamber. The liquid-tube connects directly with a valve-seat in the rubber, and the valve is a rubber disk with a single perforation, located just over the exit end of the tube, and serves to give egress to the fluid and ingress to the air.

186,141. **Remedy for Fevers.**—Judie D. Lipscomb, Andrews, Va. [A compound consisting of tulip-tree bark (*Liriodendron*), willow bark (*Salix*), blue gentian (*Gentiana Catesbæi*), wild-cherry bark (*Prunus Virginiana*), dogwood bark (*Cornus Florida*), sassafras

(*Sassafras*), flowering almond (*Prunus amygdalus*), whiskey, common salt, sulphate of quinia, and Fowler's solution of arsenic (*Liquor potassæ arsenitis*).]

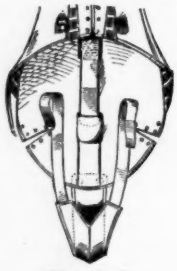
186,175. **Devices for Decanting Liquids.**—Eugene Snyder, Harrisburg, Pa.

186,154. **Strainers for Faucets.**—S. S. Newton, Binghamton, N. Y. The plug has a chamber which can be opened from below, and into which a filtering material can be introduced, or removed for cleansing or other purposes.



186,154.

186,258. **Abdominal Corsets.**—C. Lascell, Newark, N. J. For a woman who is pregnant or who may have a prominent abdomen from other cause. The cut shows the inner surface (from the rear). The central spring is made in two overlapping portions which maintain the rigidity of the supporter while bending forward or other movements on the part of the wearer are not interfered with. The weight of the abdomen is thrown on to the shoulders and hips.



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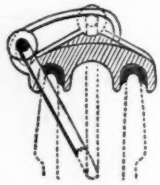


No. 186,270.

186,270. **Bottle-Stoppers.**—E. B. Requa, Jersey City Heights, N. J. The combination with a stopper-cap for bottles and other vessels, of a packing-gasket held by a screw-threaded rim formed on or affixed to the under surface of the cap.

186,287. **Tooth Brushes.**—S. Woolverton, Trenton, N. J.

186,294. **Combustible Compounds.**—Jean Baptiste David Cassinelli, Paris, France. A combustible compound consisting of tan bark, charcoal, and nitrate of lead, cemented together by means of starch paste, and formed into cakes.

186,311. **Combined Bottle and Basket.**—E. Cusenier, Paris, France.

186,321. **Bottle for Hair Dye.**—Thos. Divine, Charleston, S. C. An outlet is made at the side of the neck opening into the hanging lip. The stopper has a thumb-piece by which it may be turned so as to bring the slot in the stopper opposite the outlet in the neck.

186,349. **Furnaces for Evaporating Alkaline Solutions.**—Jno. Kitchen, Manayunk, Pa., assignor to himself and Uriah B. Allen, Sandy Hill, N. Y.

186,400. **Indicators for Drawing Liquids from Bottles.**—Isidor Levi, Cincinnati, O.

Patents granted January 23, 1877.

186,469. **Pessaries.**—Charles N. Fowler, Youngstown, O. A modification of Hodges' pessary.

186,321.

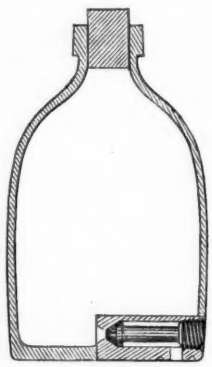
186,469.

186,476. **Bottle-Stoppers.**—J. M. Hoyt, Lynn, Mass. The metallic stopper-cap has grooves in the top, of different depths, in order that the vail may compress the elastic portion of the stopper more or less, as desired.

186,485. **Preparing Aniline Dyes.**—L. Leigh, Pittsfield, Mass. Forms the composition into small cakes of any convenient size and shape. In using the dye, the quantity desired is shaved from the cake into a vessel of boiling water. As a new article of manufacture, a solid block or cake consisting of soap, gelatine, and an aniline dye, the whole soluble in water and capable of imparting a fixed color to fabrics.

186,512. **Registering Devices for Bottles.**—E. Zahringer, Pittsburg, Pa.

186,540. **Poultices.**—H. E. Canty, Liverpool, England. [A water-bag faced with spongiopiline or similar absorbent material, to serve as a poultice.]



186,557.

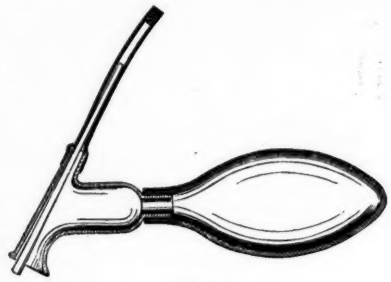
186,557. **Jugs, etc.**—Thomas C. Hargrave, Boston, Mass. The combination with a jug, or other receptacle for containing a volatile fluid or liquid charged with gas, of a closed case provided with induction and eduction openings, a valve, and means for operating the latter.

186,573. **Eyeglasses.**—F. P. Innarone, Washington, D. C.

186,605. **Processes of Preparing Extract of Meat.**—Henry Naumann, Basle, Switzerland. The process of preparing meat consists in first taking the lean portion of the meat and treating with distilled or soft water, then adding a suitable acid, after which the liquor is boiled under high pressure, bicarbonate of soda added, and the product evaporated and thickened.

186,592. **Artificial Leeches.**—Floyd T. McDonald,

Blacksburg, Va. A scarificator works through the upper part of a T-shaped tube, which is inserted by its lever-leg into a rubber bulb.



186,592.

186,635. **Bottle Protectors.**—Wm. C. Stokes, Grass Valley, Cal.

186,645. **Evaporating Apparatus.**—D. Watson, Havana, Cuba.

186,646. **Open Pan Juice-Evaporators.**—The same.

Patents granted January 30, 1877.

186,694. **Invalid Bedsteads.**—W. Spanner, Toronto, Ontario, Canada, assignor to B. Morton, same place.

186,700. **Hinged Splints.**—G. S. Adams, Philadelphia, Pa.

186,712. **Flavoring Powders.**—Wm. P. Clokworthy, Baltimore, Md., assignor to Smith, Hanway & Co. As a new article of food, flavoring powders composed of fluid extracts or essential oils used for flavoring food and table luxuries, and starch, meal, flour, and other dry absorbents.

186,726. **Veterinary Surgical Instruments.**—L. W. Hamilton, Pendleton, Oreg.

186,735. **Processes of making a Pigment Base.**—Henry Knight, Liverpool, Eng. The process of making a pigment base, which consists in adding to a solution of zinc sulphate a solution of calcic sulphide, to the filtrate a solution of sodic sulphide, and to the filtrate of this latter reaction a solution of calcic chloride; the usual resulting precipitates being collected together.

186,743 **Soda-Carbonating Apparatus.**—J. McCloskey, East Cambridge, Mass.

186,760. **Trusses.**—E. H. Ryno, Wayland, Mich.

186,764. **Apparatus for Drawing Still Waters.**—E. Ripley Sibley, St. Louis, Mo.

186,798. **Bottling Machines.**—A. Christin, Chicago, Ill.

186,860. **Apparatus for the Hydration of Chlorine Gas.**—W. Maynard, Philadelphia, Pa.

Reissued.

7,485. **Processes and Apparatus for Evaporating and Calcining Alkaline Solutions.**—M. L. Keen, Stroudsburg, and Hugh Burgess, Royer's Ford, Pa., assignors to American Wood Paper Company. [Patent No. 46,244.]

Prices of Quinine, Salicine, etc., in England.—The wholesale price of quinine in England and on the Continent, in January, 1876, was 6s 6d. an ounce; in January, 1877, 11s. an ounce. Salicine a year ago was 1s. 10d. an ounce; it is now 10s. Salicylic acid in January, 1876, was 1s. 4d. an ounce; it is now 1s. The price of salicylate of soda was not quoted a year since; it is now 1s. 3d. The value of quinine has probably been enhanced by the prospect of the war in Eastern Europe. Salicine has suddenly sprung into favor as a drug. It is made only from the willow bark, and that only at stated times of the year.

ITEMS.

College of Pharmacy of the City of New York.—The session of 1876-77 came to an end on Friday, March 8th, at which time the result of the examination was announced to the Graduating Class. In compliance with the recommendations of the Conference of Teaching Colleges, the usual oral and written examination was supplemented by a practical laboratory examination, in which each student was required to determine, as to identity or as to purity, 3 specimens of pharmaceutical chemicals, selected at random from a previously prepared collection. The answers handed in in this department have shown to the examiners that there is yet a large field for improvement in the practical training of young pharmacists, and it will be made the aim of the college to direct particular attention to, and to illustrate the practical application of, the theoretical instruction imparted in the lectures. During the summer a special afternoon-laboratory course will be arranged for any young men, who are unable to attend the usual morning-course, and we would earnestly recommend to our young friends to take advantage of this offer. The number of graduates (52) this year is the largest ever passed since the establishment of the college (in 1829), and the average standing of the class is not inferior to any previous one. The names of the graduates are: A. L. Avery, E. N. Benham, O. Boeddiker, J. A. Boyken, S. C. Bradley, M. J. Breitenbach, E. Broquet, W. D. Colby, F. M. Corwin, O. Doepfner, V. Duteil, K. J. Egge, P. Fries, W. A. Frost, F. Garrison, W. S. Getty, J. Goetze, W. Hebig, F. P. Heidt, V. Herdling, C. L. Howe, O. H. Hund, E. L. Hunt, R. L. Iler, R. J. Kingston, M.D., C. F. Klippert, H. Kopf, C. J. Lawler, E. F. Leister, A. Levy, E. Montanus, Jr., W. G. Neubauer, F. H. Nowill, J. H. Parker, C. N. Pauly, H. Rieger, J. T. Rose, J. P. Routh, H. Schmid, W. Schoelles, G. T. Schoenchen, Conr. Schoenefeld, H. Von R. Schrader, O. O. Speck, E. A. Stahl, Jr., J. A. Stegmaier, J. Teschner, H. Van der Emde, W. A. Van Duzer, F. B. Wells, J. G. Winckelmann, E. V. Zoeller.

Kings County Pharmaceutical Society.—At a meeting held in Brooklyn, on the 27th of February, the following officers were elected, and Code of Ethics adopted:

President, George C. Close; *First Vice-President*, G. M. Baker; *Second Vice-President*, Cyrus Pyle; *Third Vice-President*, —— Sheets; *Secretary*, Lewis E. Nicol; *Treasurer*, R. J. Owens; *Censors*, Geo. H. Norfolk, Geo. A. Newman, H. M. Gross; *Trustees*, Thomas Jones, L. T. Perkins, Elisha Theal, Jr., S. Chichester, Barent Livinston; *Delegates to the Amer. Pharm. Assoc.*, Geo. Neuman, J. F. Sayre, J. O. Barnby.

CODE OF ETHICS.

PREAMBLE.—The Kings County Pharmaceutical Society, considering it necessary that some mutual understanding should exist in regard to the principles guiding them in their profession hereby agree upon the following Code of Ethics:

I.—We accept the United States Pharmacopœia as our standard and guide for all officinal preparations and recognize a variance from its rules only in exceptional cases, where sufficient authority has proved some other process more reliable to attain the same end. This Section is not intended to interfere with the dispensing of prescriptions or medicines ordered in accordance with foreign pharmacopœias.

II.—Although not a legitimate part of our business, custom, and the necessities of the times, warrant us in keeping the proprietary medicines of the day, yet we earnestly recommend pharmaceutists when called upon for an opinion of their merits, to discourage their use.

III.—We discountenance all secret formulas between physicians and pharmacists, and consider it our duty to communicate such to each other when requested.

IV.—We distinctly repudiate the practice of allowing physicians a percentage on their prescriptions as derogatory to both professions.

V.—We will endeavor, as far as lies in our power, to refrain from compromising the professional reputation of physicians, and we expect the same comity from them.

VI.—Since the professional training of the pharmacist does not include those branches which enable a physician to diagnosticate and treat disease, we should, in all practicable cases, decline to give medical advice and refer the applicant to a regular physician.

VII.—The growing demands of the age require that those who follow the profession of pharmacy should be educated up to a higher standard; therefore we consider it our duty, individually and collectively, to encourage the advancement of knowledge in our profession generally, and particularly by stimulating our assistants to attend the lectures of some college and by aiding and assisting them to do so.

VIII.—Considering it expedient that some rule be adopted to enforce the provisions of our Code, we hereby agree that, if any just complaint of its violation be found against a member of this Society, to bring the case before a special or the next general meeting of the Society, when the accused, after being heard in his own defense, may be expelled by a two-thirds vote.

The Metric System and New Jersey.—The District Medical Society for the County of Hudson, N. J., at the regular meeting held on March 6, unanimously agreed to a resolution which recommends the Metric System in prescribing.

At the Annnal Meeting of The American Microscopical Society of the City of New York, held Tuesday evening, January 9, 1877, the following officers were elected for the ensuing year: John B. Rich, M.D., President, 1 West 38th Street, N. Y.; Wm. H. Atkinson, M.D., Vice-President, 41 East 9th Street, N. Y.; O. G. Mason, Secretary, Bellevue Hospital, N. Y.; T. d'Orémieulx, Treasurer, 7 Winthrop Place, N. Y.; John Frey, Curator, Bellevue Hospital, N. Y. On the evening of the sixth inst. the Society gave a public reception at the Kurtz Gallery, on Twenty-third Street, the rooms being crowded with gentlemen and ladies. A number of small tables were placed at intervals on the floor, and on them microscopes and apparatuses thereto pertaining were arranged for the edification of the guests. The interest evinced in the exhibition was all that could have been desired by the most enthusiastic member of the Society, and the gathering did not break up until a late hour.

Obituary.—POGGENDORFF, Prof. Joh. Christ., born at Hamburg, Dec. 29, 1796; died at Berlin, Jan. 24, 1877. He was an apothecary from his 16th to his 24th year; afterwards he studied chemistry and physics, and soon acquired a prominent name. He was editor of "Poggendorff's Annalen," and has been professor of physics at the university of Berlin since 1834.

HOFMEISTER, Dr. Wm. Fred. Benedict. Prof. of Botany at the university of Tübingen. Born 1824; died Jan. 12, 1877.

BAIN, Alex. Inventor of the electro-chemical printing telegraph. Died at Broomhill in Scotland.

Mr. ALFRED SMEE, F.R.S.—By an oversight we failed to mention in our last number the death of this well-known writer and inventor, which occurred in January. He had for many years been surgeon to the Bank of England, and was the inventor of the present method of printing its notes. He was the originator of the "Smee battery," and author of a number of works upon electricity and professional subjects.

Poison Bottles, of the fluted blue-glass pattern, introduced by Mr. Toogood, have been adopted by the dispensary of King's College Hospital, in London, and are now used for all liquid medicines to be applied externally. Patients are required to bring such bottles with them, or to pay the hospital the cost price for them.

Stopcocks, Measuring Rules, and Accurate Weights of rock-crystal, made by H. Stern in Oberstein, Prov. Aldenburg, Germany, are highly recommended by Prof. C. R. Fresenius.

To Detect Artificial Coloring in Highwines, as Brandy, or Whiskey, add one-sixth of their volume of white of an egg to the suspected sample, shake well, and allow the mixture to separate again. If the liquor was colored naturally, by being kept in wooden casks, the supernatant liquid will be observed to have retained its color; but if the color disappears, artificial coloring (caramel) has been added to the liquor.

Invisible Ink for Postal Cards.—The *Deutsche Illustrirte Gewerbezeitung* proposes the general use of what may be called "postal card ink," for messages which are sent on such cards, or otherwise unsealed. The advantage would be, that under ordinary circumstances the message would remain unknown to any but the person addressed, although everybody might employ the same ink and the same means for developing the writing; for, since it is unlikely that real confidential messages would be sent by open postal card, but few persons would have inclination or time to develop the writing at the risk of being found out, and not finding out anything important themselves. Various liquids are proposed for this purpose. A solution of nitrate or chloride of cobalt, or chloride of copper, mixed with a little gum or sugar, produces a "magic ink," which is made visible by warming, either by holding against the stove or over a burning match. Potassium ferrocyanide in solution may also be used; but this requires a developer, for which either copper or iron sulphate may be employed. With the former the writing will appear in brown, and with the latter in blue color.

Prize Announcement.—The "Pharmaceutische Kreis-Verein Leipzig, Bureau für Untersuchung von Nahrungsmitteln und für hygieinische Zwecke," B. Kohlman, chairman, offers a prize of 300 marks for the discovery of a sure and practical method of determining foreign fats in cow's butter. Papers in answer to this must be sent to the above-named address on or before Sept. 30, 1877; they must be inscribed with a motto, and be accompanied by a sealed envelope, bearing the same motto and containing the author's name. The paper receiving the prize remains the property of the bureau.

Patent Medicines in Alsace-Lorraine.—A decree has recently been issued regulating the sale of specialities and secret remedies in Alsace-Lorraine. According to it all the preparations that had received the approval of the French Academy of Medicine previous to the annexation of those provinces to the German Empire are still allowed to be sold. But those that had not been so sanctioned, as well as new medicines, must first receive the authorization of a commission sitting at the University of Strasburg, and consisting of M. Gusseron, Dean of the Faculty, and Professors Kussmall, Schmiedeberg, and Flückiger.

Laboratory Notes.—Hard rubber or vulcanite, placed for several weeks in nitrobenzol, becomes soft and pliable like leather, and easily broken.

The vapor of chloral hydrate is a solvent of cellulose. Corks of bottles containing the crystals have been found to be eaten away to the depth of quarter of an inch, the cork being resolved into a black semi-liquid. Certain kinds of tissue paper, if thrown into a bottle containing the crystals, are partially dissolved.

Aniline oil is said to dissolve gum copal with great facility.

Hyposulphite of soda seems to be soluble to a certain extent in spirits of turpentine.

The vapor of iodine, in the course of several months, will penetrate deeply into lumps of beeswax.—*American Chemist.*

Poisoning by Lead.—A case of lead poisoning which recently occurred in France was traced to the pewter foil used to cover Roquefort cheese. The pewter contained twelve parts of tin, eighty-five parts of lead, and three of undetermined matter.